

Reference No 62199/1  
SPECIAL COUNCIL: 25 May 2017



1. CITY STRATEGY AND ORGANISATIONAL PERFORMANCE DEPARTMENT REPORT ON THE TABLING OF THE 2017/21 INTEGRATED DEVELOPMENT PLAN (IDP) FOR ADOPTION  
(From the Mayoral Committee: 17 May 2017)

1. PURPOSE

To table the City of Tshwane draft 2017/21 Integrated Development Plan (IDP), the first IDP for the new Administration after the local government elections which took place on 3 August 2016, attached as Annexure A, for adoption in terms of section 25(1) of the Municipal Systems Act, Act 32 of 2000, as well as the 2017/18 Build Environment Performance Plan (BEPP) 2017/18 for approval.

2. STRATEGIC OBJECTIVES

- 2.1 Promote good governance and active citizenry

3. BACKGROUND

The IDP is intended to provide strategic direction and operational planning for the City for the term of office. In line with the provisions of the legislation as discussed below and to address emerging developments, the 2017/21 IDP is tabled to Mayoral Committee to recommend the adoption thereof to Council.

The *Constitution* commits government to take reasonable measures, within its available resources, to ensure that all South Africans have access to adequate housing, health care, education, food, water and social security.

In order to realise the above, the Chapter 5 of the *MSA* states that a municipality must undertake developmentally oriented planning, in the form of integrated development planning, to ensure that it achieves the objects of local government as set out in the *Constitution*. It must further give effect to its developmental duties as required by Section 153 of the *Constitution*.

---

Section 25(1) of the Municipal Systems Act, Act 32 of 2000, prescribe the following:

*"25 Adoption of integrated development plans*

1. *Each municipal council must, within a prescribed period after the start of its elected term, adopt a single, inclusive and strategic plan for the development of the municipality which-*
2. *Links, integrates and co-ordinates plans and takes into account proposals for the development of the municipality;*
3. *Aligns its resources and capacity of the municipality with the implementation of the plan;*

4. *Forms the policy framework and general basis on which annual budgets must be based; ...."*

The tabling of the 2017/21 IDP for adoption is in line with this provision.

Furthermore, Chapter 4 of the Municipal Systems Act describes the process to be followed directly after tabling the IDP, annual budget, and supporting documents. It requires municipalities to make the documents public; invite the local community to submit representations; and requires the submission of the documents to the National Treasury and the relevant provincial treasury, to other organs of state and to other municipalities.

The process of integrated development planning strives to systematically and transparently find acceptable solutions within given time frames regarding allocating resources to service delivery. Municipalities use integrated development planning as a tool to plan future development in their areas in a sustainable manner. In terms of Section 152 of the Constitution the objectives of local government are:

1. to provide democratic and accountable government for local communities;
2. to ensure the provision of services to communities in a sustainable manner;
3. to promote social and economic development;
4. to promote a safe and healthy environment; and
5. to encourage the involvement of communities and community organisations in the matters of local government.

#### 4. DISCUSSION

##### *Process followed in the development of the IDP 2017/21*

Process followed towards the drafting of the 2016/21 IDP in terms of the approved process plan is summarised in the table below.

Section 16(2) of the MFMA requires the Executive Mayor to table the IDP and Budget at a Council meeting at least 90 days before the start of the budget year. The intention of tabling these documents in advance is to allow for comment by stakeholders and local communities. The draft 2017/21 IDP was tabled to Council on 30 March 2017 for the purpose of public comment. The Draft IDP was subsequently published for comments and was made available on the City's website and all City of Tshwane libraries to enable communities to access the document.

The table below outlines the progress against some key actions which guided the development of the IDP as contained in the process plan approved by Council in August 2016.

ACTION	DETAILS OF THE ACTION
Approval of the IDP and Budget process plan	The IDP and budget process plan was tabled and approved by Council in August 2016
Mayoral Strategic Planning	The Mayoral Committee convened a Strategic Planning Session (SPS) in October 2016 where the agenda for the 2017/18 financial year was set. The SPS resolved on. The focus of this session was to set the context for the new term



	<p>of council as well as the approach towards the development of the IDP and MTREF, thus setting a strategic path towards strategic planning for the new term of office. This was followed up with a second Strategic Planning Session held in February 2017 where the focus was the following:</p> <ul style="list-style-type: none"> <li>• To present the new Vision and Political Priorities for the City;</li> <li>• To present the strategic framers for the 2017/18 Budget which focus on the following three areas: Stabilisation, Revitalisation and Deliver;</li> <li>• The evaluation of the current financial situation of the City and what steps need to be taken to resolve and stabilise the situation;</li> <li>• Departmental focus in relation to the new Vision and Political Priorities and how they are responding thereto through their IDP scorecard and MTREF proposals.</li> </ul>
Intergovernmental alignment	<p>In February 2017, the City engaged with its provincial counterparts, as per the IDP July-to-July Road Map of provincial COGTA and the approved IDP process plan. The objectives of the discussions were to:</p> <ul style="list-style-type: none"> <li>• Provide a platform for provincial departments to articulate their priorities for the 2017/18 financial year; and</li> <li>• Address issues of dependency and ensure alignment with provincial and national counterparts.</li> </ul>
Mid-year performance review and adjustments process	<p>The mid-year performance report together with the 2016/17 SDBIP adjustments were tabled to Council in February 2017. This information was used to establish the baseline during the 2017/21 planning cycle.</p>
Budget Steering Committee Hearings (BSC) Budget Steering Committee Hearings (BSC)	<p>The City Manager held a Technical Budget Steering committee from 6-8 March 2017 which focussed on the following principles:</p> <ul style="list-style-type: none"> <li>• The Executive Mayor's Political direction</li> <li>• Tshwane Development Strategy</li> <li>• Nation Treasury Strategic Development Review</li> <li>• Reworking of departmental budgets to "budget neutral"</li> <li>• Address the priorities as contained in the City Strategy</li> <li>• Clear strategies on how you responding to value for money and show saving</li> <li>• What is your strategy on generating revenue and RIO</li> <li>• Capital investment plan (where the priorities areas)</li> <li>• Detailed breakdown of contract for the next 3 years</li> <li>• Commitments for the 2017/18, 2018/19 and 2019/20</li> </ul> <p>The focus of the Draft IDP as well as the MTREF was presented at the Budget Steering Committee chaired by the MMC Finance in March 2017.</p>
Finalisation and updating of draft documents	<p>The draft IDP was tabled to Council on 30 March 2017 for public comments</p>
Publication of draft IDP & Budget and consultations with communities and stakeholders	<p>Draft IDP and Budget was published for comments and made available on the City's Website and in all City of Tshwane libraries. Ward Councillors facilitated meetings in their wards during the comment period. On 18 April 2017 a</p>

	IDP and Budget Summit was held with strategic stakeholders during which the draft IDP and MTREF was presented and discussed.
National Treasury Municipal Budget and Benchmark exercise	Engagement and Benchmark Exercise on the tabled draft IDP and MTREF took place with National Treasury on 19-21 April 2017 during which <ul style="list-style-type: none"> <li>• 2017/18 BEPP Review</li> <li>• IDP and MTREF Review</li> </ul>
Refinement and finalisation of the annual budget and IDP	Based on comments received from communities and stakeholders, the IDP has been finalised;  BEPP/CIF Review process (city's spatial priority programmes in line with set political priorities & grant alignment & intergovernmental budget alignment)
Approval of the IDP, Budget, and BEPP/ CIF for 2017/18 inclusive of Municipal Owned Entities	Final approval by Council of the IDP, Budget document and BEPP/CIF by resolution, setting municipal taxes and tariffs, changes to the IDP and budget related policies; measurable performance objectives and targets; revenue by source and expenditure by vote.  The aim of this report is to adhere to this predetermined milestone

#### Summary of input received as part of the consultation on the Draft IDP

Section 16(2) of the MFMA requires the Executive Mayor to table the IDP and Budget at a Council meeting at least 90 days before the start of the budget year. The intention of tabling these documents in advance is to allow for comment by stakeholders and local communities.

The tabling of the Draft IDP was followed by public consultation meetings (outreach sessions) with stakeholders and ward communities to strengthen the principles of people-centered governance, transparency and accountability.

#### *2017/18 IDP and Budget Commenting Process*

In April 2017 the City engaged with its broader community to solicit inputs into the tabled draft documents. Copies of the drafts were made available at all City libraries as well as the municipal website and the public was made aware of it through advertisements on 6 April 2017 in the Pretoria News and Beeld newspapers.

Ward community meetings were held during April 2017 to allow councillors to present the draft proposals to ward members. A stakeholder summit with invited stakeholders on the City's database to present the draft 2017/21 IDP and 2017/2020 MTREF which also included the draft proposed tariffs. These meetings were designed to allow for comments on both the drafts to be gathered through written submissions. Presentations were made and critical questions were asked and discussed/resolved.

As part of the comment period, communities could also submit written comments on the Draft documents. The following is a summary of the comments received:

- Maintenance of infrastructure such as roads, storm water systems, electricity networks, water and sanitation networks, parks, sport and recreational facilities
- Expansion of public transport system to serve un-serviced areas to alleviate traffic congestion
- Traffic control and speed law enforcement need to be improved
- Erection of traffic signs
- The status of lease agreements for various sporting bodies and clubs all affiliated to the Tshwane Sports Council which has lapsed is a serious matter for concern for the Tshwane Sports Council and need to be resolved as a matter of urgency
- Upgrading of various sport facilities are required
- Land restitution matters in the Wallmansthal area
- The formalisation of informal settlements in the city and the provision of basic services to them
- Grass cutting at strategic road intersections to improve safety
- Illegal "Shack farming" which takes place on private land need to be addressed
- Accessibility of buildings for disabled people. The City must ensure that all new developments does provide facilities and proper access to PWD
- Refuse removal and illegal dumping need urgent attention and the city as a whole is becoming filthy which must be addressed. Are refuse removal teams effective and monitored on their respective schedules?
- Need for the construction of RDP houses

#### *Contents of the 2017/21 IDP*

Section 26 of the *Municipal Systems Act* contains information on the core components of an integrated development plan. It determines *inter alia* that an IDP must reflect:

- (a) the municipal council's vision for the long term development of the municipality;
- (b) an assessment of the existing level of development in the municipality, which must include an identification of communities which do not have access to adequate basic services;
- (c) the Council's development priorities and objectives for its elected term;
- (d) any development initiatives in the municipality, including infrastructure, physical, social, economic and institutional development;
- (e) the Council's development strategies;
- (f) a spatial development framework for the municipality;
- (g) the Council's operational strategies;
- (h) a disaster management plan;
- (i) a financial plan; and

- (j) the key performance indicators and performance targets in terms of the Performance Management System.

In the light of the above, the Draft 2017/21 IDP document consists of the following Chapters:

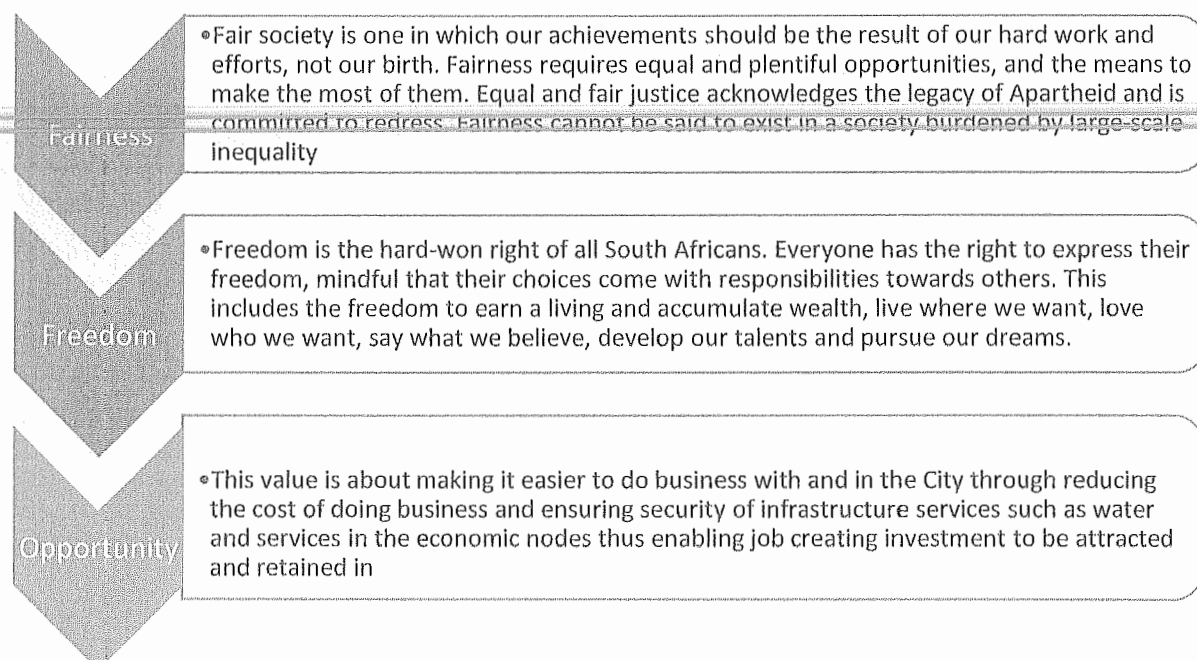
*Preamble, Context and Overview:* this chapter places the IDP in context and it positions it at the first IDP for the 2017/21 term of office. The chapter emphasises the new political vision. It set the agenda for the term of office which will focus on the following three strategic framers: Stabilisation, Revitalisation and Deliver. The process towards the development of the IDP is also captured in this chapter with the six strategic objectives which are directly related to the key performance areas of local government as envisaged in the Constitution. The chapter concludes by giving a summary of the contents of each of the chapters in the 2017/21 IDP review.

*Situational Analysis:* the aim of the situational analysis chapter is to reflect on the developmental progress made in the City and to allow for a realistic view of the developmental challenges that the City is confronted with. Much of the information that is contained in this chapter based on the statistical information as per the StatsSA and updates have been provided with sources such as the IHS Global Insight data for 2016.

*Strategic Intent* chapter highlights the strategic pillars that guide the development plans for 2017/21. The chapter is drafted taking into consideration the changing development trends as well as some of the commitments that have been made which affect the City.

The Strategic Intent chapter also seeks to align the planned proposals of the City to the Performance Management Framework of the City of Tshwane by highlighting the governance values, strategic pillars as well as the priority areas for the term of office.

The diagram below depicts the values with which the City will embrace in its fulfilment of its responsibilities:



Using the above values, the City's development interventions will be underpinned by five (5) Development Strategic Pillars which are as follows:

- Pillar 1: A City that Facilitates Economic Growth and Job Creation
- Pillar 2: A City that Cares for Residents and Promotes Inclusivity
- Pillar 3: A City that Delivers Excellent Services and Protects the Environment
- Pillar 4: A City that Keeps Residents Safe
- Pillar 5: A City that is Open, Honest and Responsive

This chapter discusses each of these strategic pillars and provided actions that will be carried out during the term of office to realise the new vision for the City:

***Tshwane: A prosperous Capital City through fairness, freedom and opportunity***

*Governance and Institutional Arrangements:* the chapter articulates the broad governance and institutional framework of the City after its subsequent review and links this to the governance model of the City. Further, it outlines some of the key administrative transformation areas that have made it possible to implement the model within the legislative context. The chapter seeks to communicate the separation of power model in the City and to inform of other institutional arrangements that will improve accountability.

*Inter-Governmental Alignment:* Intergovernmental Relations (IGR) refers to the complex and interdependent relations amongst the national, provincial and local spheres of government as well as the coordination of public policies amongst these three spheres. In essence, this means that the governance, administrative and fiscal arrangements operating at the interface between national, provincial and local governments must be managed to promote the effective delivery of services. This chapter outlines the key projects and engagements that

*Community Participation* chapter examines the City's participatory planning processes toward the development of this document and beyond. It provides a high level summary of the information gathered through the first and second phase of the community participation processes.

*Spatial Development Framework* outlines high level interventions of the metropolitan spatial development framework and Capital Investment Programmes into the City's settlement restructuring agenda. This chapter sets out the spatial restructuring elements of the City together with the key capital projects to support these.

*Capital Investment Framework:* this chapter focus on the priority spatial development proposals which also inform the allocation of resources and contain the detail capital project list for the MTREF.

*Performance Management:* highlights performance management structures of the City that will ensure delivery against the planned deliverables for the 2017/21 term office. The chapter seeks to communicate some of the key monitoring and evaluation structures and systems that will be used in monitoring and evaluation of the work that is done by the City.

*Financial Plan:* provide a summary of the outline of the medium term revenue and expenditure framework (MTREF) in terms of allocation of resources to implement the new IDP. It also presents the tariffs proposed for 2017/18.

*Annexure B: Response to the priority issues raised as part of 3 issues per ward*

This annexure contains the consolidated response to the issues that were raised in each ward as part of the IDP development process.

*Annexure C: The Build Environment Performance Plan (BEPP)*

The approach of this 2017/18 BEPP document is to provide updated information on key issues where information is available and to provide a point of departure for the development of the 2018/19 BEPP. Fundamentally, the focus is anchored around service delivery excellence and innovation; growing the economy and creating jobs; promoting a safe and healthy city; promoting social cohesion, inclusion and diversity; and fostering participation, collaboration and diversity.

Tshwane's urban fabric is a stark reminder of the large disparities that still exist between the economic status of various segments of the population. Only through focused effort on improving urban productivity, inclusivity and sustainability will these disparities start to change.

The focus on spatial alignment has been proven to significantly redirect and reshape the way in which the City is applying its capital expenditure to achieve a multitude of interwoven and interrelated goals and objectives. Most of these spatial realities focus on redressing the inequalities of the past in an integrated and sustainable way.

The 2017/18 BEPP puts forward a template to which the City will endeavour to shoehorn its capital expenditure going forward. The template will comprise of the three elements in time namely the past, the present and the future. By far, the biggest impediment and responsibility lies in the past – huge infrastructure backlogs serve as handicaps slowing down the process of restoring human dignity and providing equality for all. Significant and effective investment should therefore go into redressing the historical backlogs that were created in history and exacerbated by significant urbanisation in combination with a host of other factors such as slow economic growth, insufficient expenditure on basic services, and many other factors. The 2017/18 BEPP is attached as Annexure "C" to the report.

## **Regional Spatial Development Framework**

The Municipal Systems Act, 2000 (Act 32 of 2000) determines that a municipality must adopt a framework for integrated development in its area in the form of an Integrated Development Plan (IDP) (Section 27). A Spatial Development Framework, which guides and informs all development forms part of the IDP (Section 35 (2)). The Gauteng Planning and Development Act, 2003 (Act 3 of 2003) determines that municipalities must formulate spatial development frameworks for their areas (Section 31 and 32). The content of these plans "shall be in the form of maps or a map together with explanatory report of the desired spatial form of the municipality".



A Spatial Development Framework must:

- Indicate where public and private development infrastructure investment should take place.
- Indicate desired development and land use patterns for different areas.
- Indicate where development of particular land uses should be discouraged or restricted.
- Provide broad indication of the areas where priority spending should take place.
- Provide guidelines for development and land use decision-making by the municipality.

The 2017 were prepared in accordance with the above mentioned provisions.

The burden on a local authority in the preparation of the IDP and the SDF with regard to public participation limits the power of a local authority to, without proper consideration amend, undermine or redirect policy. The citizenry within the jurisdiction of the City of Tshwane has the right to be able to rely on the content of the IDP and RSDF, SDF's and any amendment thereto should not be taken lightly.

In particular, no development proposal may undermine the budgetary provisions contained in the IDP read with the SDF. Should such development proposals have merit, they should be tested against the overall objectives of the policy documentation and formally incorporated to ensure integrated, funded and sustainable development takes place, that reach the objectives set out in the policy documents. The RSDF indicate where and how discretionary powers are granted to deal with applications on merit. A merit deviation should be based on specific criteria or threshold requirements, which requirements shall in the sole opinion of the local authority be complied with, in order to deviate or amend the RSDF or any component thereof. Keeping in mind that if it is so material as to impact on the overall objectives of the MSDF, RSDF, SDF or IDP, that it can only be formally amended by the legislative body of Council, with public participation.

The RSDF is considered to be the implementation mechanism for the Roadmap towards Tshwane 2030, Metropolitan Spatial Development Framework (MSDF), as well as other Strategic Policies with a spatial emphasis, such as the Council approved Densification and Compaction Strategy, Retail Strategy, Rural Strategy, Tshwane Integrated Transport Plan and the Tshwane Open Space Framework.

The RSDF will focus on Spatial transformation, Economic transformation and Ecological transformation as investigated in the **Roadmap towards Tshwane 2030**.

It is important to note that although the said Frameworks were compiled in terms of a single process to ensure functional interaction between the regions and deals with similar issues of metropolitan importance, the individual Frameworks acknowledge the unique characteristics of each Region.

The Regional Spatial Development Frameworks (RSDF) are aimed at dealing with the following spatial related aspects, focussing however, on a regional level:

- Provide spatial direction for development; (Spatial transformation)
- Provide an appropriate and integrated regional spatial framework for

- sustainable development; (Economic transformation)
- Ensure directed public investment, through the identification of geographic areas where intervention is necessary; (Economic transformation)
- Guide local development, in relation to urban movement and activity systems, in order to realise the vision of sustainability and urbanity; (Ecological Transformation)
- Inform developers and the general public of the location, structure and form of development that will most likely be approved and the sustainable urban planning and development guidelines to be followed; (Spatial transformation)

The purpose of the said RSDF is to furthermore, deal with the following issues of metropolitan importance, namely:

- Spatial Transformation
- Densification
- Public Transport and Movement
- Urban Growth Management
- Rural Development
- Open Space and Conservation
- Economic transformation by means of Nodal Development and Job Opportunities
- Act as management tool which will enable Council officials to facilitate, guide, control and sustain development in the Region

The said frameworks will furthermore be linked to the IDP and capital budget to ensure public investment, whilst private sector investment and development will be via land-use applications of which all applications/ developments will be evaluated according to the extent at which they contribute towards the spatial vision of the CoT as outlined in the RSDF's.

The Spatial Development framework will be compiled inter alia in terms of the relevant provincial legislation and the Spatial Planning and Land Use Management Act, 16 of 2013 (SPLUMA) and the City of Tshwane Metropolitan Municipality Land Use Management By Law, 2015, with specific reference to Public Participation. This legislation is not applicable to the Spatial Development Framework but will be in the future once a Municipal Spatial Development has been approved by Council. In anticipation of the abovementioned legislation the following Public participation process is proposed.

The 2017 RSDF's is considered an important planning and management tool to give effect to the City's Vision and respond to development needs.

The spatial concept of nodal and corridor development will facilitate the realisation of a Sustainable, Competitive and Resilient City of Tshwane by:

- giving high impact to broad-based economic growth
- reducing carbon footprint
- creating improved quality of environment
- giving equitable access to work opportunities city-wide
- providing broader housing options across income groups within an area of opportunity through densification, consolidation and strategic location



The detail of the spatial vision can be found in the Regional Spatial Development Frameworks, which are further supported by Local Spatial Development Frameworks.

Although massive investment in fixed assets will be required, strong policies, consistent implementation and political will see a spatially transformed Tshwane within the next 10-15 years. This spatial transformation will improve job and livelihood prospects by reducing travel time and cost, increasing access of poor households to education opportunities and encourage large scale investment in the City. It is critically important that the nodal and corridor approach as adopted does not change until the spatial vision is achieved.

## 5. COMMENTS OF THE STAKEHOLDER DEPARTMENTS

### 5.1 COMMENTS OF THE CHIEF FINANCIAL OFFICER

The purpose of this report is to table the City of Tshwane draft 2017/21 Integrated Development Plan (IDP), the first IDP for the new Administration after the local government elections which took place on 3 August 2016, attached as Annexure A; for adoption in terms of section 25(1) of the Municipal Systems Act, Act 32 of 2000.

The approval of an IDP Strategic Plan, as required by the Municipal Systems Act, Act 32 of 2000, is a critical milestone that needs to be achieved to ensure sustainable planning within any municipality as it is indicated that the commitments, targets and projects contained in the draft 2017/21 IDP are based on available funding as per the draft 2017/18 – 2019/20 MTREF tabled together with the IDP. Should the MTREF be amended, the performance targets and projects will also have to be amended accordingly.

It is recommended in the report that notices be placed in the newspaper and on the City of Tshwane website, as per the requirements of the Municipal Systems Act informing the public of the approval of the 2017/21 IDP.

It is imperative that the Group Head: City Strategy and Organisational Performance must ensure that sufficient funds are allocated for the placing of advertisements, public notices and printing of relevant documents in the applicable financial year.

The Group Financial Services Department will render further financial comments on future reports in this regard.

### 5.2 COMMENTS OF THE CHIEF OF EMERGENCY SERVICES

The purpose of this report is to table the City of Tshwane draft 2017/21 Integrated Development Plan (IDP), the first IDP for the new Administration after the local government elections which took place on 3 August 2016, attached as Annexure A; for adoption in terms of section 25(1) of the Municipal Systems Act, Act 32 of 2000.

The Emergency Services acknowledges and supports the content of the report, its recommendations as well as its annexure. These gives guidance to what milestones towards service delivery must be reached within the following five years. Knowledgeable of the City's budget constraint, the Emergency Services also ought

to see the construction of more emergency services facilities as per the CSIR's Social facility Planning report in order to bring services to the community, currently not served properly.

### 5.3 COMMENTS OF THE CHIEF OF POLICE

The purpose of the Report is to table the City of Tshwane draft 2016/21 Integrated Development Plan (IDP), the first IDP for the new Administration after the local government elections which took place on 3 August 2016, attached as Annexure A; for adoption in terms of section 25(1) of the Municipal Systems Act, Act 32 of 2000.

The Tshwane Metro Police acknowledges and supports the content of the report, its recommendations as well as its annexure. It should also be noted that the manner in which the City's safety and security measures are managed, maintained and integrated depends largely on the extent of enabling factors (such as critical tools of trade) to ensure operational competency of development goals.

### 5.4 COMMENTS OF THE GROUP HEAD: GROUP HUMAN CAPITAL MANAGEMENT

The purpose of the report is to table the 2017/21 Integrated Development Plan (IDP) of the City of Tshwane. The IDP is the basis on which policy, strategy and planning for the 5 year period is anchored. This should ensure that the organisation is able to respond to the demands of the residents of the City of Tshwane. The practical and operational analysis of the IDP requires a paradigm shift in the methods and models applied to execute certain functions in the organisation. This in many instances requires the expertise of line departments to comprehend the magnanimity of work required and formulate strategies for the city.

The city has evolved over a period and many lessons can be drawn from its evolution to strengthen existing delivery models. There could be a need to review current systems to ascertain their responsiveness to the mandates carried through the IDP.

The new macro organisational structure has been adopted by Council on the 24 November 2016 which was primarily designed amongst others motives, improved efficiency and effectiveness. The process is currently underway to develop a micro structure that will be based on the same set of principles as the macro structure. The organisational structure is ordinarily designed through interpretation of strategy and at the center of it all is the Integrated Development Plan. Therefore the structure will undergo a second phase of its development beyond the stabilisation phase to ensure that it enables the city to achieve its objectives as per the IDP commitments. The contents and intention of the report are therefore noted and supported.

### 5.5 COMMENTS OF THE GROUP HEAD: GROUP LEGAL AND SECRETARIAT SERVICES

The purpose of this report is to table the City of Tshwane draft 2016/21 Integrated Development Plan (IDP), the first IDP for the new Administration after the local government elections which took place on 3 August 2016, attached as Annexure A, for adoption in terms of Section 25(1) of the Municipal Systems Act 32 of 2000.

The report is aligned with Strategic Objectives 4 which aims at promoting Good Governance and Active Citizenry.

Section 51 of the Local Government: Municipal Systems Act 32 of 2000 places a duty on the Municipality within its administration and financial capacity to establish and organize its administration in a manner that would enable the Municipality to amongst others, be performance orientated and focused on the objects of local government as embodied in Section 152 of the Constitution of the Republic of South Africa, Act 108 of 1996.

In terms of Section 11(3) (a) (c) & (n) of the Local Government: Municipal Systems Act 32 of 2000, A municipality exercises its legislative or executive authority by developing and adopting policies, plans, strategies and programs, including setting of targets for delivery, establishing and maintaining an administration and also by doing anything else within its legislative and executive competence.

Section 17(3) of the Municipal Finance Management Act 56 of 2003 provides that, when an annual budget is tabled in terms of section 16(2), it must be accompanied by amongst others the following documents:

- (a) any proposed amendments to the municipality's integrated development plan following the annual review of the integrated development plan in terms of section 34 of the Municipal Systems Act.

Section 25(1) of the Municipal Systems Act 32 of 2000 provides that, each municipal council must, within a prescribed period after the start of its elected term, adopt a single, inclusive and strategic plan for the development of the municipality.

In terms of Section 25(4) of the Municipal Systems Act 32 of 2000, a municipality must, within 14 days of the adoption of its integrated development plan in terms of subsection (1) or (3)–

- (a) give notice to the public—

- (i) of the adoption of the plan; and

- (ii) that copies of or extracts from the plan are available for public inspection at specified places; and

- (b) publicise a summary of the plan.

Section 34 of the Municipal Systems Act 32 of 2000, stipulates that, a municipal council—

- (a) must review its integrated development plan—

- (i) annually in accordance with an assessment of its performance measurements in terms of section 41; and

- (ii) to the extent that changing circumstances so demand; and

(b) may amend its integrated development plan in accordance with a prescribed process.

Section 15 of the Municipal Finance Management Act 56 of 2003 provides that a Municipality may, except where otherwise provided in this Act incur expenditure only in terms of an approved budget and within the limits of the amounts appropriated for the different votes in an approved budget.

Having taken regard to the aforesaid and with specific reference to the contents of the report, Group Legal Services Department support the approval of the report and the recommendations thereof and submits that the report and its annexures be referred to the Mayoral Committee for their attention and approval of the recommendations.

## 5.6 COMMENTS OF THE GROUP HEAD: COMMUNITY AND SOCIAL DEVELOPMENT SERVICES

The purpose of this report is to table the City of Tshwane draft 2016/17 Integrated Development Plan (IDP), the first IDP for the new Administration after the local government elections which took place on 3 August 2016, attached as Annexure A; for adoption in terms of section 25(1) of the Municipal Systems Act 32 of 2000.

The Community and Social Development Services Department supports the content of the report as well as its recommendations and annexure. The report gives the Department a clear indications of what the community needs are and the necessary service delivery required.

## 6. IMPLICATIONS

### 6.1 HUMAN RESOURCES

Departments made submissions of projects based on available resources. As per legislation, it is required that once the IDP is approved, performance agreements will be concluded by the City Manager and direct reports to the City Manager, to ensure the implementation of the IDP.

### 6.2 FINANCES

The commitments, targets and projects contained in the draft 2017/21 IDP are based on available funding as per the draft 2017/18 – 2019/20 MTREF tabled together with the IDP. Should the MTREF be amended, the performance targets and projects will also have to be amended accordingly.

### 6.3 CONSTITUTIONAL AND LEGAL FACTORS

This report addresses a legislative requirement for Council approve its IDP as prescribed by the Municipal Systems Act and the Municipal Finance Management Act.

#### 6.4 COMMUNICATION

The decision of Council regarding the approval of the 2017/21 IDP will be made public via the Tshwane website and newspaper notices. The same document will be submitted to National Treasury, Provincial Treasury, and the MEC for Local Government and Housing as required by legislation.

#### 6.5 PREVIOUS COUNCIL OR MAYORAL COMMITTEE RESOLUTIONS

The approved Draft 2017/21 IDP and budget which was the basis for public comment towards the finalisation of the final document.

#### 7. CONCLUSION

This report tables the 2017/21 IDP for approval in line with Section 25 of the Municipal Systems Act, Act 32 of 2000 and must be read in line with the 2017/18-2019/20 MTREF.

**The Mayoral Committee on 17 May 2017 resolved to recommend to Council as set out below:**

**During consideration of this item by Council on 25 May 2017, the following Councillors participated in a debate:**

S Motsaneng  
SJ Mabona  
KB Disoloane  
RT Mashego  
PD Uys  
MD Matsena  
Prof CJ Napier

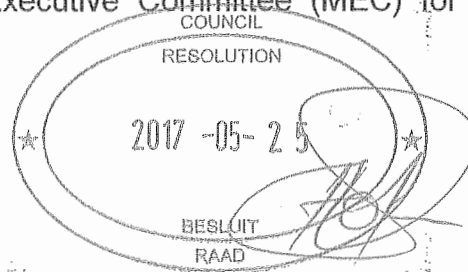
**Following the debate, it was resolved as set out below:**

#### ANNEXURES:

- A. Final IDP 2017-21 for Council approval
- B. Response to Ward Issues as part of 3 Issues per ward needs exercise
- C. ~~2017-2018 BEPP Build Environment Performance Plan~~
- D. Regional Spatial Development Frameworks: Region 1- 7

#### RESOLVED:

1. That the Tshwane 2017/2021 Integrated Development Plan (IDP) as contained in Annexure A of the report be approved.
2. That the approved Integrated Development Plan (IDP) be submitted to National Treasury and the Member of the Executive Committee (MEC) for Cooperative Governance and Traditional Affairs.



3. That notices be placed on the newspaper and on the City of Tshwane website, as per the requirements of the Municipal Systems Act informing the public of the approval of the 2017/21 Integrated Development Plan (IDP).
4. That the Build Environment Performance Plan (BEPP) 2017/18 attached as Annexure C to the report, be approved and be submitted to National Treasury.
5. That the Spatial Development Framework as adopted and referred to in Chapter 7 of the Integrated Development Framework contemplated in Resolution 1, for purposes of section 20 of the Spatial Planning and Land Use Management, Act 16 of 2013 ("SPLUMA") and Chapter 4 of the Tshwane Land Use Management By-law, 2016, be further public participated as indicated in the body of the report and in accordance with SPLUMA.
6. That the Regional Spatial Development Framework for the seven Regions for public participation, in terms of the relevant legislation be approved.





## Annexure A

---

2017/21 Integrated  
Development Plan

---

**16 May 2017**

*Version: Final Draft*



## CONTENTS

<b>PREAMBLE: 2017/21 INTEGRATED DEVELOPMENT PLAN .....</b>	<b>3</b>
<b>1. SITUATIONAL ANALYSIS .....</b>	<b>1</b>
<b>2. STRATEGIC INTENT .....</b>	<b>25</b>
<b>3. GOVERNANCE AND INSTITUTIONAL ARRANGEMENTS .....</b>	<b>42</b>
<b>4. INTER-GOVERNMENTAL ALIGNMENT .....</b>	<b>51</b>
<b>5. COMMUNITY PARTICIPATION .....</b>	<b>75</b>
<b>6. METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK .....</b>	<b>98</b>
<b>7. CAPITAL INVESTMENT FRAMEWORK.....</b>	<b>117</b>
<b>8. OUR IMPLEMENTATION APPROACH FOR 2017/21 .....</b>	<b>145</b>
<b>9. PERFORMANCE MANAGEMENT .....</b>	<b>156</b>
<b>10. FINANCIAL PLAN .....</b>	<b>168</b>



## **PREAMBLE: 2017/21 INTEGRATED DEVELOPMENT PLAN**

### **Introduction**

The 2017/21 IDP presented in this document is significant for the City in two ways. First, the document is first IDP of the new elected administration and guides the way for the fourth term of local government.

Secondly the IDP seeks to ensure that by 2021 the development trajectory of the City resulted in:

- An Opportunity City
- A Sustainable City
- A Caring and Inclusive City
- A Safe and Clean City
- An Open and Honest City

The above, much as they are outcomes, these are however the development pillars which guides the long term planning for the City. These pillars are anchored around the priority areas which are the focus for this term of office.

### **Legislative Context for the Development of the IDP**

The Municipal Systems Act states that each municipal council must, within a prescribed period after the start of its elected term, adopt a single, inclusive and strategic plan for the development of the municipality which (a) links, integrates and coordinates plans and takes into account proposals for the development of the municipality; (b) aligns the resources and capacity of the municipality with the implementation of the plan; and (c) forms the policy framework and general basis on which annual budgets must be based.

In line with the Municipal Systems Act (MSA) and the Municipal Finance Management Act (MFMA), the City of Tshwane has developed the five-year IDP for 2017/21, which is supported by the Medium-term Revenue and Expenditure Framework for the 2017–2020 financial years.

This IDP will be the fourth IDP in the new local government dispensation since 2001 when the first democratic local government election were held. Over the last twenty plus years of democracy, a number of processes unfolded which not only guided the history of the country, but also had an impact on the development of Tshwane as it is today. On 3 August 2016, the 5<sup>th</sup> term of local government started with the local government elections which took place. The result of the elections gave birth to a new political administration which are now setting the development agenda for the next four years and beyond it towards a vision for the city by 2030.

### **Context and strategic focus of the 2017/21 IDP**

This IDP presents the new vision for the City which is:

## “A prosperous Capital City through Fairness, Freedom and Opportunity”

The implementation towards achieving the new vision for 2030 are anchored around service delivery excellence and innovation; growing the economy and creating jobs; promoting a safe and healthy city; promoting social cohesion, inclusion and diversity; and fostering participation, collaboration and diversity.

To realise this vision, the City has to make strategic choices which will inform the extent to which the strategy can be implemented. The framework this IDP which is a first critical step towards the vision can be depicted in the diagram below:



## Process followed towards the development of the 2016/21 IDP

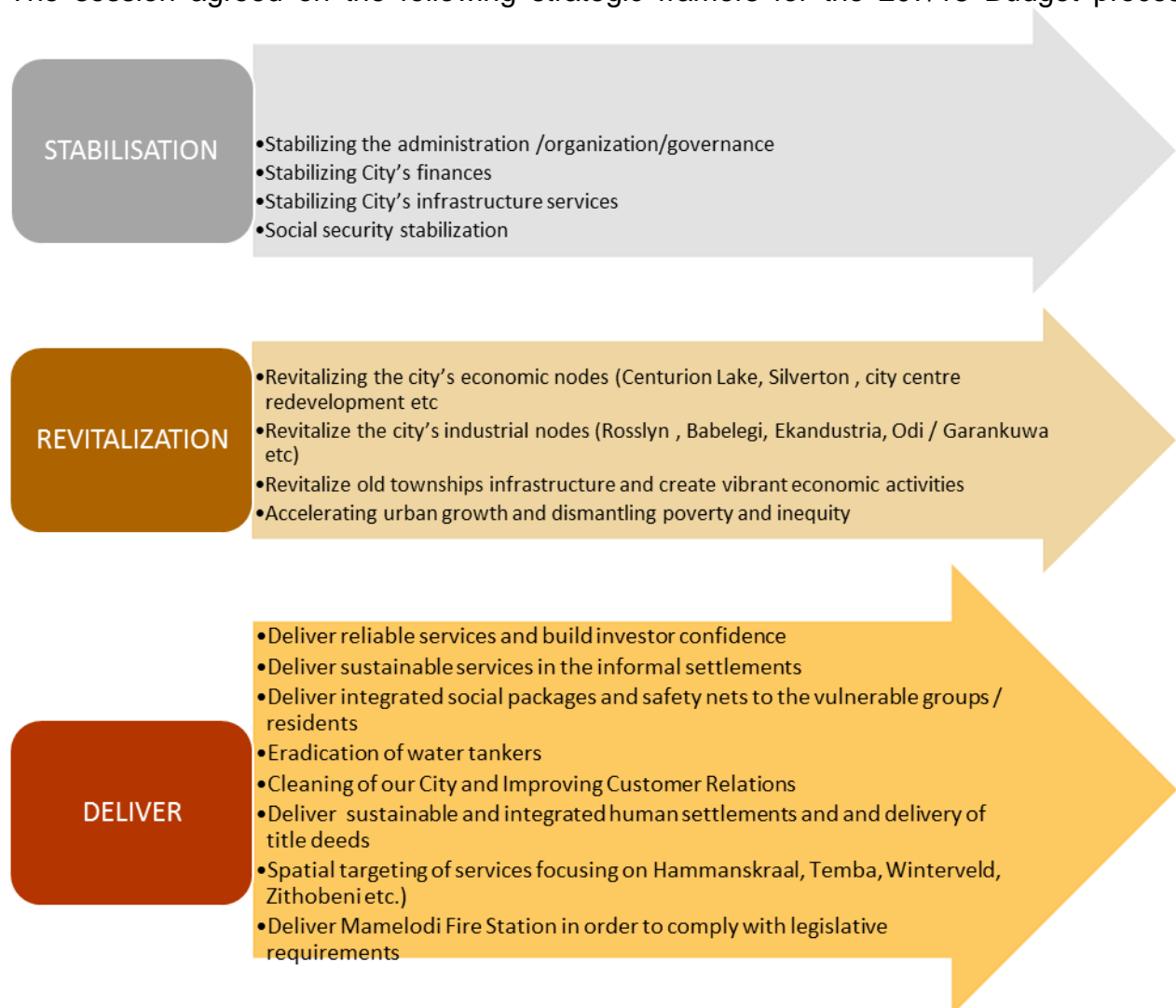
The process followed in the development of the 2017/21 IDP document is in line with the legislative requirements of both the Municipal Systems Act and the Municipal Financial Management Act. Further, the process has allowed for a streamlined strategic process to be achieved as outlined in the section above.

As part of the finalisation of the document, the City will engage with all the relevant stakeholders to solicit views and inputs into the City's plan for the 2017/21 term of office. The following engagement processes were embarked upon toward the development of this document:

### ***Mayoral Strategic Planning Session I: Strategic Agenda Setting:***

The Mayoral Committee convened a strategic planning session in October 2016 where the agenda for the 2017/21 financial year was set. The session resolved on the approach towards the development of a new Tshwane Development Strategy 2030 which will guide the IDP and thus set a strategic path towards the strategic planning for the new administration.

The session agreed on the following strategic framers for the 207/18 Budget process:



### ***Intergovernmental Engagement***

In February 2017, the City engaged with its provincial counterparts, as per the IDP July-to-July Road Map of provincial COGTA and the approved IDP process plan. The objectives of the discussions were to:

- Solicit progress on the provincial projects for 2017/18 FY
- Provide a platform for provincial departments to articulate their priorities for the 2017/18 financial year; and
- Address issues of dependency and ensure alignment with provincial and national counterparts.

This engagement will be continued toward the finalisation of the IDP and input from national and provincial departments will be used to ensure that there is an integrated approach to development for the communities is achieved.

### ***Mayoral Strategic Planning Session 2: Concluding the Agenda for 2017/21 IDP***

In February 2017, the Executive Mayor Convened a second strategic planning session which achieved the following among others:

- Presentation of Tshwane Development Strategy 2030 (TDS 2030) which is laying the foundation for the 2017/21 IDP
- Review of the financial situation of the City in terms of its sustainability and to make recommendations on a financial turnaround plan for the City
- Engaged on the transformation areas presented in TDS 2030 and to align the plans and proposed budget towards the goals contained therein

This IDP revision and the supporting MTREF document provides details in terms of the plans detailing the deliverables for the 2017-21 term of office.

## **Overview of this Document**

***Preamble, Context and Overview:*** this chapter places the IDP in context and it positions it at the first IDP for the 2017/21 term of office. The chapter emphasises the new political vision. It set the agenda for the term of office which will focus on the following three strategic framers: Stabilisation, Revitalisation and Deliver. The process towards the development of the IDP is also captured in this chapter with the six strategic objectives which are directly related to the key performance areas of local government as envisaged in the Constitution. The chapter concludes by giving a summary of the contents of each of the chapters in the 2017/21 IDP review.

***Situational Analysis:*** the aim of the situational analysis chapter is to reflect on the developmental progress made in the City and to allow for a realistic view of the developmental challenges that the City is confronted with. Much of the information that is contained in this chapter based on the statistical information as per the StatsSA and updates have been provided with sources such as the IHS Global Insight data for 2016.

**Strategic Intent** chapter highlights the strategic pillars that guide the development plans for 2017/21. The chapter is drafted taking into consideration the changing development trends as well as some of the commitments that have been made which affect the City.

The Strategic Intent chapter also seeks to align the planned proposals of the City to the Performance Management Framework of the City of Tshwane by highlighting the governance values, strategic pillars as well as the priority areas for the term of office

The development strategic pillars are as follows:

- A City that Facilitates Economic Growth and Job Creation
- A City that Cares for Residents and Promotes Inclusivity
- A City that Delivers Excellent Services and Protects the Environment
- A City that Keeps Residents Safe
- A City that is Open, Honest and Responsive

**Governance and Institutional Arrangements:** the chapter articulates the broad governance and institutional framework of the City after its subsequent review and links this to the governance model of the City. Further, it outlines some of the key administrative transformation areas that have made it possible to implement the model within the legislative context. The chapter seeks to communicate the separation of power model in the City and to inform of other institutional arrangements that will improve accountability.

**Inter-Governmental Alignment:** Intergovernmental Relations (IGR) refers to the complex and interdependent relations amongst the national, provincial and local spheres of government as well as the coordination of public policies amongst these three spheres. In essence, this means that the governance, administrative and fiscal arrangements operating at the interface between national, provincial and local governments must be managed to promote the effective delivery of services. This chapter outlines the key projects and engagements that

**Community Participation** chapter examines the City's participatory planning processes toward the development of this document and beyond. It provides a high level summary of the information gathered through the first and second phase of the community participation processes.

**Spatial Development Framework** outlines high level interventions of the metropolitan spatial development framework and Capital Investment Programmes into the City's settlement restructuring agenda. This chapter sets out the spatial restructuring elements of the City together with the key capital projects to support these.

**Capital Investment Framework:** this chapter focus on the priority spatial development proposals which also inform the allocation of resources and contain the detail capital project list for the MTREF.

**Implementation Approach for 2017/21:** this chapter highlights some of the key performance measures towards the delivery of key services to the residents of Tshwane.

**Performance Management:** highlights performance management structures of the City that will ensure delivery against the planned deliverables for the 2017/21 term office. The chapter seeks to communicate some of the key monitoring and evaluation structures and systems that will be used in monitoring and evaluation of the work that is done by the City.

**Financial Plan:** provide a summary of the outline of the medium term revenue and expenditure framework (MTREF) in terms of allocation of resources to implement the new IDP. It also presents the tariffs proposed for 2017/18.

# 1. SITUATIONAL ANALYSIS

## Introduction

This chapter presents the City of Tshwane in its context as the Capital City of South Africa and discusses the socio-economic development status of Tshwane. The information in this chapter come from the following sources:

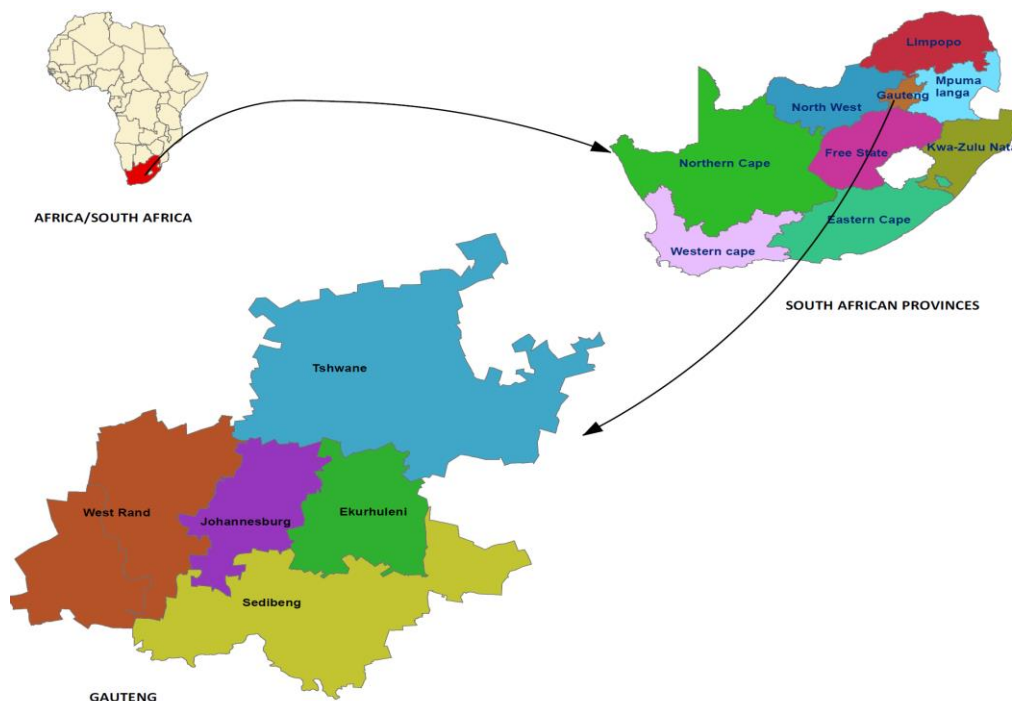
- *Census 2011 by Statistics South Africa*: A principal means of collecting basic population and housing statistics required for social and economic development, policy interventions and their implementation and evaluation. South Africa has conducted three censuses (1996, 2001 and 2011). Census 2011 was the third census to be conducted since the democratic elections in 1994. A number of population and household attributes were measured and a variety of indicators generated. These will provide Tshwane-specific profile results on all census topics: demographics, migration, education, general health and functioning, labour force, mortality and households;
- *Statistics SA: Statistical Release P0302 - Mid-year population estimates 2016*: This release uses the cohort-component methodology to estimate the 2016 mid-year population of South Africa. The estimates cover all the residents of South Africa at the 2016 mid-year, and are based on the latest available information. Estimates may change as new data become available. For 2016, Statistics South Africa (Stats SA) estimates the mid-year population as 55,91 million.
- *IHS Global Insight (2016)*: An independent service provider with whom the City has a service-level agreement to provide the City with socio-economic data on a regular basis. This is generated through various models and allows the City to have a view of socio-economic development in Tshwane. This source of information has allowed the City to compare the changes over a number of years and it has been utilised with regard to recent IDP reviews; and
- *City of Tshwane Social Facility Planning Using Accessibility Analysis Project report: 2015/16*: The study was conducted by the Built Environment Unit of the Council for Scientific and Industrial Research (CSIR). The project sought to identify those areas across all the regions where the supply and demand for facilities is not balanced in terms of the current facility supply and the current population distribution, while also taking service provision standards into account. The study also provides recommendations of where interventions should be targeted.

## City of Tshwane in context

City of Tshwane is classified as a Category A Grade 6 urban municipality by the Municipal Demarcation Board in terms of section 4 of the Local Government Municipal Structures Act, 1998 (Act 117 of 1998). The Municipality was established on 5 December 2000 through the integration of various municipalities and councils that had previously served the greater Pretoria regime and surrounding areas. The boundary of the city was further amended on 28 May 2008, through a proclamation in the Government Gazette which incorporated the former Metsweding District Municipality, including Dinokeng tsa Taemane (Cullinan) and Kungwini (Bronkhorstspuit) into the borders of City of Tshwane. The incorporation, which gave birth to the new City of Tshwane in May 2011 after the local government elections, was in line with the Gauteng Global City Region Strategy to reduce the number of municipalities in Gauteng by the year 2016.

With the incorporation of the above mentioned areas, it enlarged the area which covers the City to an extent of 6 345km<sup>2</sup>. The extent of this can be practically explained in that the City stretches almost 121 km from east to west and 108 km from north to south making it at that time the third-largest city in the world in terms of land area, after New York and Tokyo/Yokohama. It also makes up more than 30% of Gauteng province 19 055km<sup>2</sup>.

**Figure: Tshwane in context**



The City of Tshwane has a Mayoral Executive System combined with a ward participatory system in accordance with section 8 (g) of the Municipal Structures Act, Act 117 of 1998. It consists of 107 geographically demarcated wards, 214 elected councillors (107 ward Councillors and 107 proportional representative Councillors)



and have just over 3.1 million residents. For administrative purposes and to enhance service delivery, it is divided into seven regions.

As the administrative seat of Government and hosting a number of Embassies, City of Tshwane has proven to be a leader on the African continent in providing affordable industrial sites, various industries, office space, education and research facilities.

An estimated 90 percent of all research and development in South Africa is conducted in Tshwane by institutions such as Armscor, the Medical Research Council, the Council for Scientific and Industrial Research, the Human Sciences Research Council and educational institutions such as the University of South Africa, the University of Pretoria and Tshwane University of Technology.

## Demographics

The total population in the Gauteng province for 2016 is estimated at 13.5 million<sup>1</sup>, which is approximately 24 percent of South Africa's population (55.91 million). This making Gauteng the most populous province in the country. As indicated in **Error! Reference source not found.1.1** below, the City of Johannesburg and Ekurhuleni accommodate the largest proportion of Gauteng's population, accounting for approximately 37 percent and 26 percent respectively. Tshwane makes up more than 3 million of the total Gauteng population, accounting for approximately 24 percent of the province's population. This making Tshwane the third most populous municipality in the province. The table below further shows the distribution in the Gauteng province both in terms of land area (km<sup>2</sup>) and the 2015 population estimates.

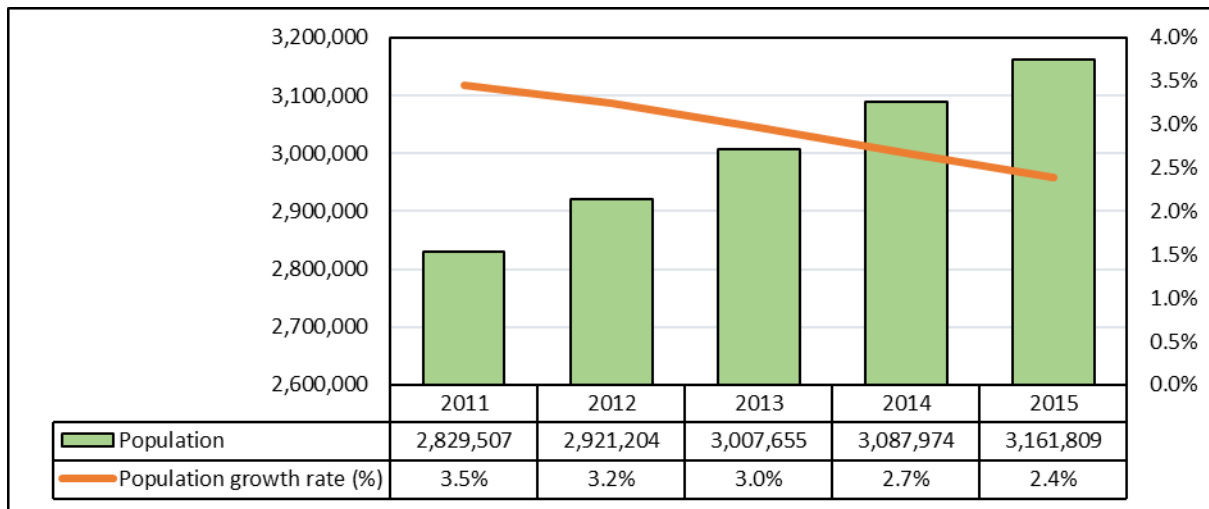
**Table 1.1: Population comparison across municipalities in Gauteng**

Name	Area (km <sup>2</sup> )	Population, 2015	As % to GP, 2015
Johannesburg	1 645	4 822 787	37%
Ekurhuleni	1 975	3 386 544	26%
Tshwane	6 345	3 161 809	24%
Sedibeng	4 173	946 818	7%
West Rand	4 087	833 358	6%

(Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015)

**Figure 1.2: Tshwane's population and population growth rate, 2011–2015**

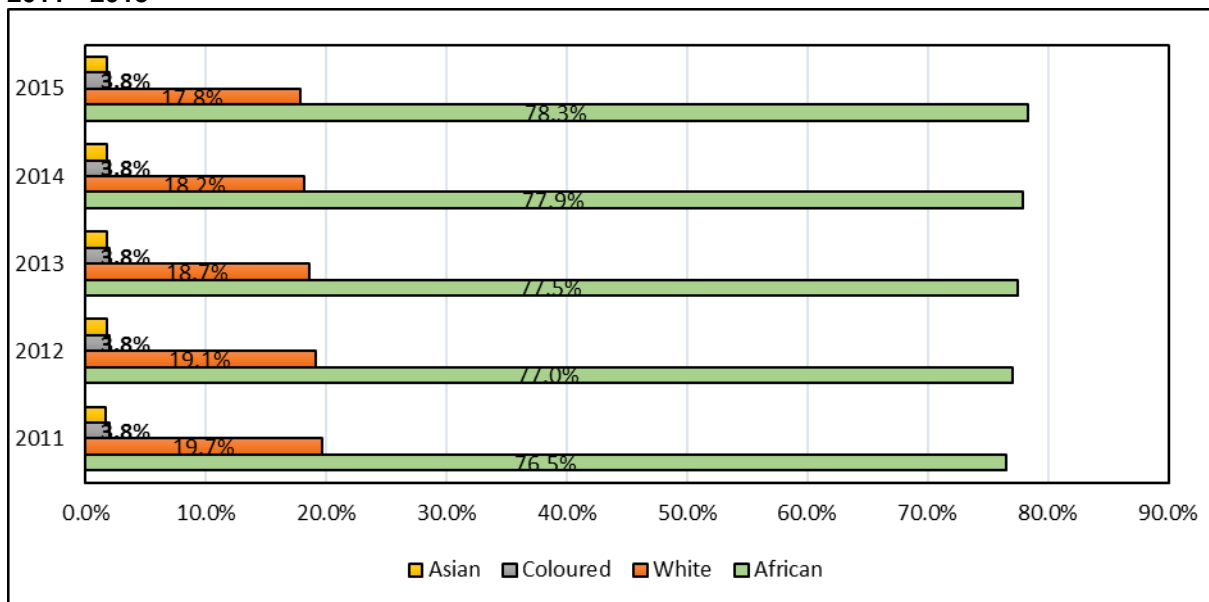
<sup>1</sup> StatsSA - Statistical release P0302: Mid-year population estimates 2016



(Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015)

The above figure, provides an overview of how the total population in Tshwane has been changing over the 2011–2015 period. As indicated in the figure, the total population in Tshwane was 2.8 million in 2011 and has since increased to over 3.1 million in 2015. For the period 2011–2015, Tshwane's population grew by 332 302. It is worth noting however that the total population in Tshwane has been increasing at a declining rate as indicated by the downward sloping population growth rate graph. In 2011, the growth rate was estimated at 3.5 percent and this estimate has since decreased to 2.4 percent in 2015.

**Figure 1.1: Tshwane population disaggregated by population group (percentage contribution), 2011 - 2015**

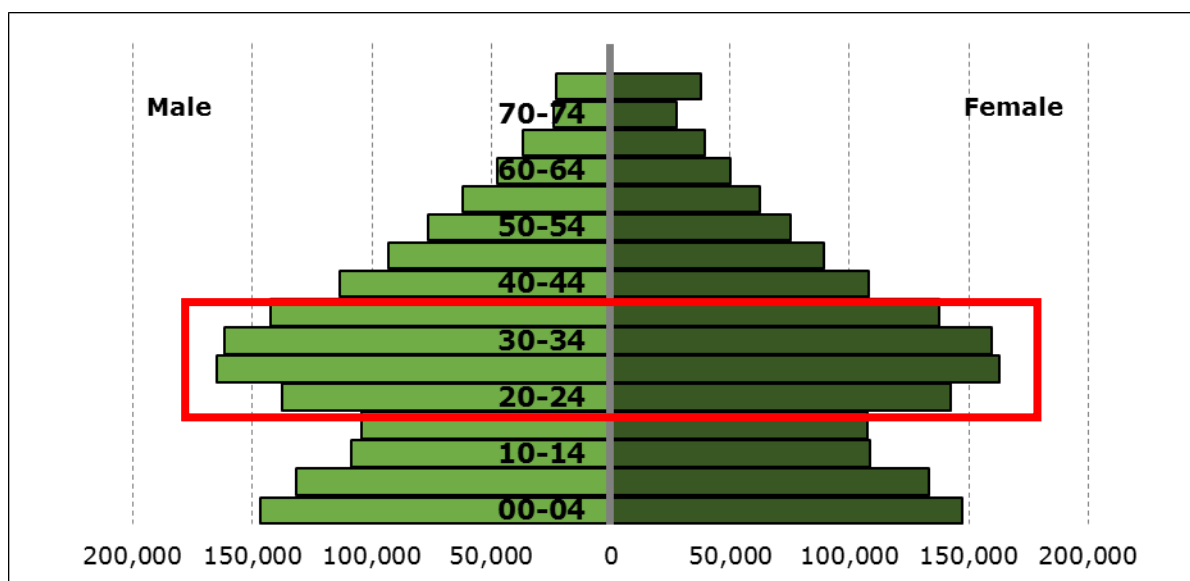


Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

**Error! Reference source not found.** above figure indicates the percentage contribution of the population groups to the total population in Tshwane over the 2011 – 2015 period. As indicated in the figure, the African population accounted for approximately 76.5 percent of the total population in 2011 and this has since increased to 78.3 percent. The White population group, which accounted for approximately 19.7 percent of the total population in Tshwane in 2011 has since

declined to approximately 17.8 percent in 2015, the Coloured and the Asian population groups' contribution combined has remained unchanged at approximately 3.8 percent over the 2011 -2015 period.

Figure 1.2: Tshwane population pyramid, 2015

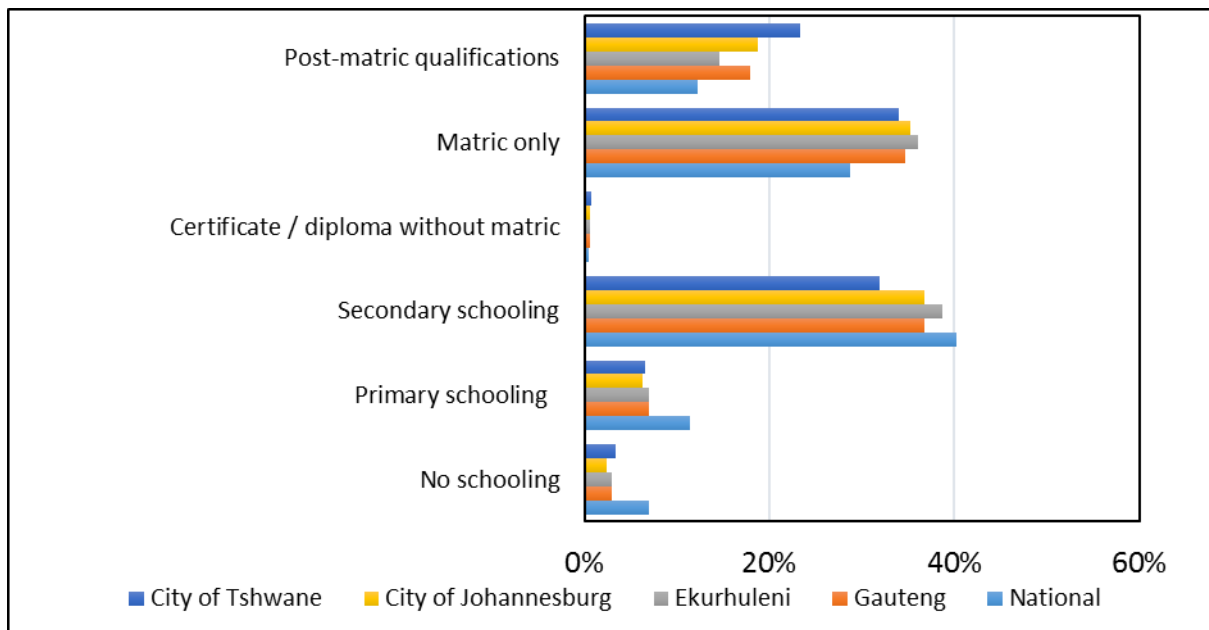


Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

**Figure 1.2** above figure indicates Tshwane's population pyramid for 2015 and as indicated in the figure, there is an apparent youth bulge in Tshwane. This is likely due to the large student population in Tshwane primarily because of the large concentration of institutions of higher learning. Approximately 61 percent of Tshwane's population is younger than 35. The youth population accounts for 36 percent of Tshwane's total population and senior residents (65+ age group) only account for approximately 6 percent of the total population.

## Education

**Figure 1.3: Highest levels of schooling for the population aged 20 years and older in Tshwane, 2015**

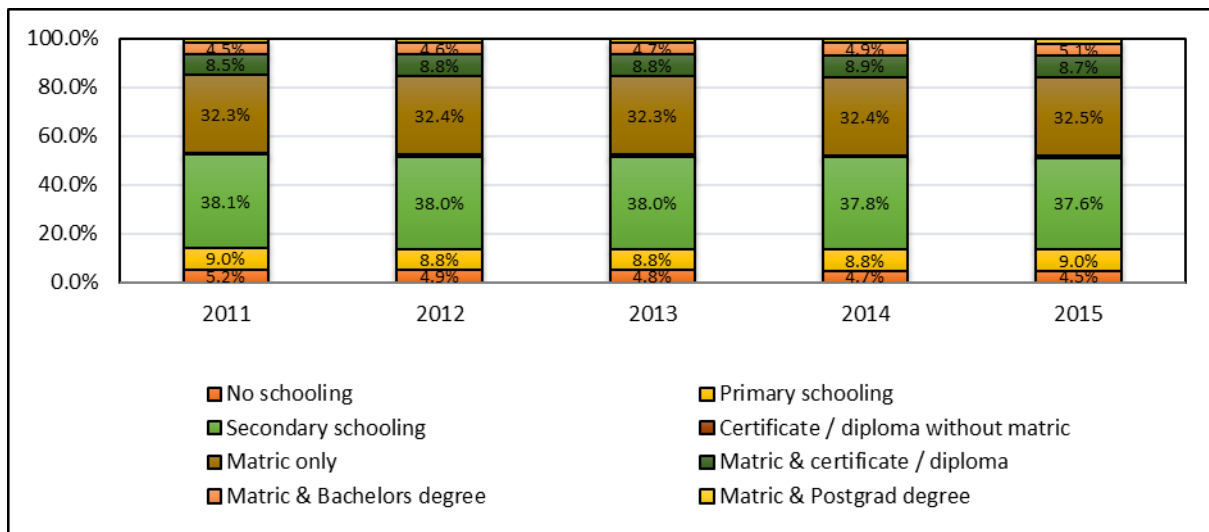


Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

Tshwane being South Africa's Capital City with the largest concentration of higher education institutions in the country, boosts the highest percentage of persons (20 years or older) with post-matric qualifications (approximately 23 percent in 2015) in comparison with the national average (approximately 12 percent), Gauteng (approximately 18 percent), Joburg (approximately 19 percent) and Ekurhuleni (approximately 15 percent), refer to **Figure 1.3**. The percentage of persons (20 years or older) with no schooling or with some primary schooling was estimated at 10 percent in 2015, i.e. 215 677 persons.

The following figures and information give an overview of the progress made in education levels per administrative region in the City from 2011 - 2015.

## Region 1

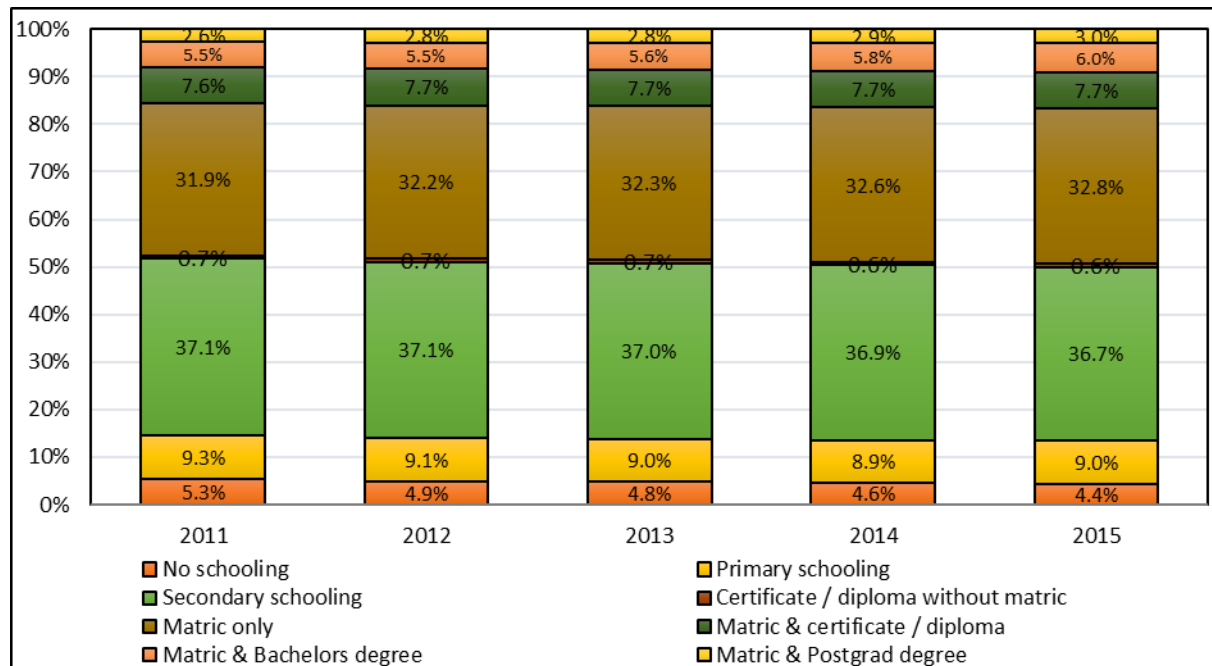
**Figure 1.4: Education levels in Region 1**

Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The above figure indicates how the educational profile of the population that is 20 years or older in Region 1 has changed over the 2011 – 2015 period. As indicated in the figure, the percentage of people (20 years +) in Region 1 with no schooling has declined from 5.2 percent in 2011 to 4.5 percent, whilst the percentage of people with at least matric has marginally increased from 47.0 percent in 2011 to 48.2 percent in 2015. The percentage of people (20 years +) in Region 1 with certificates or a diploma without matric has declined from 0.7 percent in 2011 to 0.6 percent in 2015.

## Region 2

Figure 1.5: Education levels in Region 2

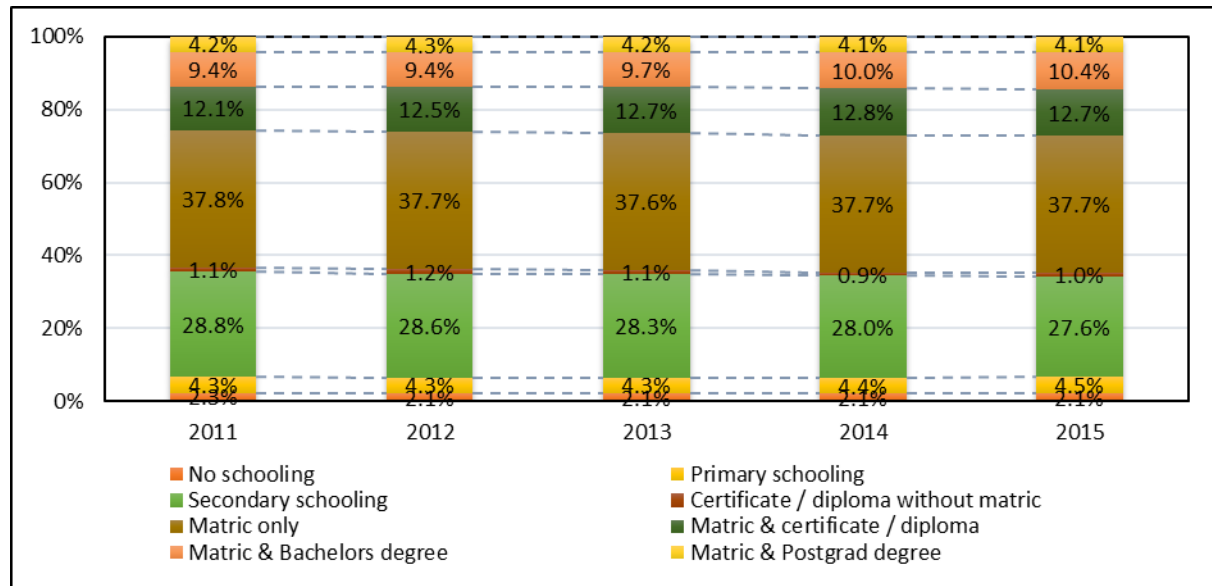


Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The above figure indicates how the educational profile of the population that is 20 years or older in Region 2 has changed over the 2011 – 2015 period. As indicated in the figure, the percentage of the people (20 years +) in Region 2 with no schooling has declined from 5.3 percent in 2011 to 4.4 percent, whilst the percentage of people with at least matric have marginally decreased from 37.1 percent in 2011 to 36.7 percent in 2015. The percentage of people (20 years +) in Region 2 with certificates or a diploma without matric has declined from 0.7 percent in 2011 to 0.6 percent in 2015.

### Region 3

Figure 1.6: Education levels in Region 3



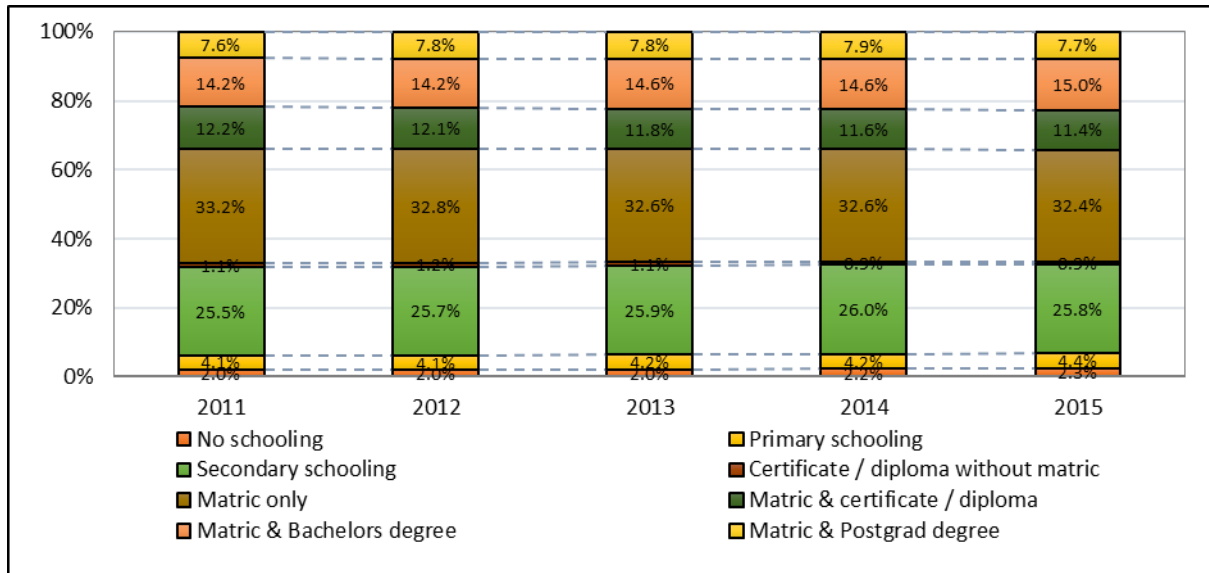
Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The above figure indicates how the educational profile of the population that is 20 years or older in Region 3 has changed over the 2011 – 2015 period. As indicated in the figure, the percentage of the people (20 years +) in Region 3 with no schooling has declined slightly from 2.3 percent in 2011 to 2.1 percent, whilst the percentage of people with at least matric have marginally decreased from 37.8 percent in 2011 to 37.7 percent in 2015. The percentage of people (20 years +) in Region 3 with certificates or a diploma without matric has since 2011 accounted the least, that is, 1.1 percent in 2011 and declined to 1.0 percent in 2015.



## Region 4

Figure 1.7: Education levels in Region 4

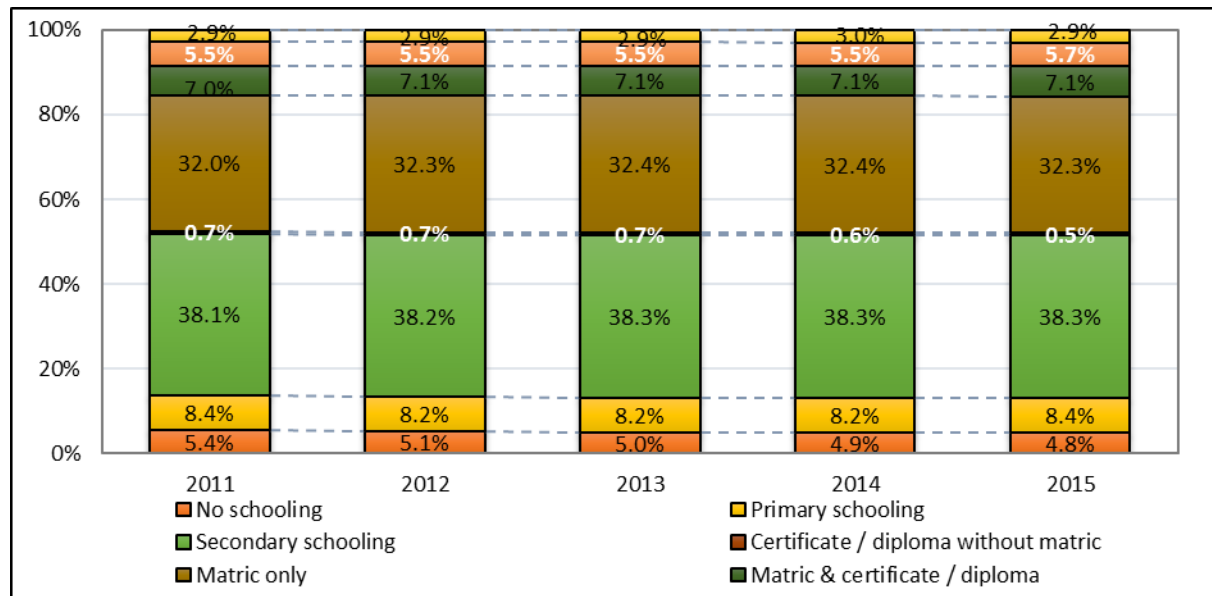


Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The above figure indicates how the educational profile of the population that is 20 years or older in Region 4 has changed over the 2011 – 2015 period. As indicated in the figure, the percentage of the people (20 years +) in Region 4 with no schooling has increased from 2.0 percent in 2011 to 2.3 percent, whilst the percentage of people with at least matric have marginally decreased from 33.2 percent in 2011 to 32.4 percent in 2015. The percentage of people (20 years +) in Region 4 with certificates or a diploma without matric has declined from 1.1 percent in 2011 to 0.9 percent in 2015.

## Region 5

Figure 1.8: Education levels in Region 5

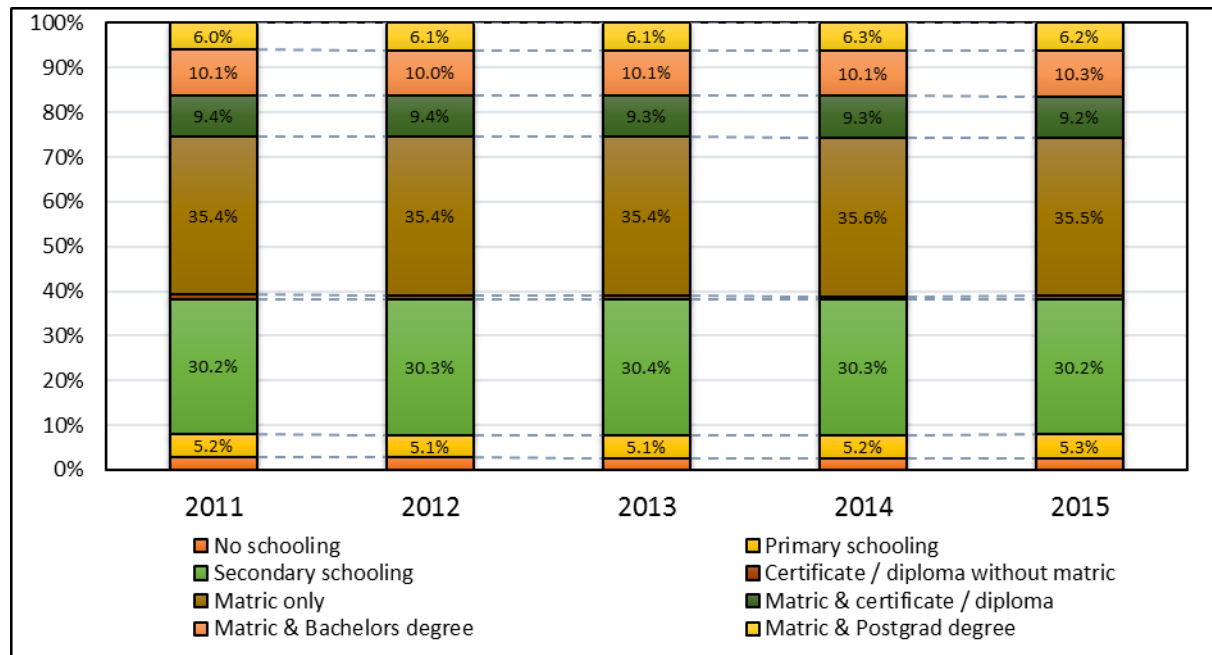


Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The above figure indicates how the educational profile of the population that is 20 years or older in Region 5 has changed over the 2011 – 2015 period. As indicated in the figure, the percentage of people (20 years +) in Region 5 with no schooling has declined from 5.4 percent in 2011 to 4.9 percent, whilst the percentage of people with at least matric have marginally increased from 47.7 percent in 2011 to 47.9 percent in 2015. The percentage of people (20 years +) in Region 5 with certificates or a diploma without matric has declined from 0.7 percent in 2011 to 0.5 percent in 2015.

## Region 6:

**Figure 1.9: Education levels in Region 6**

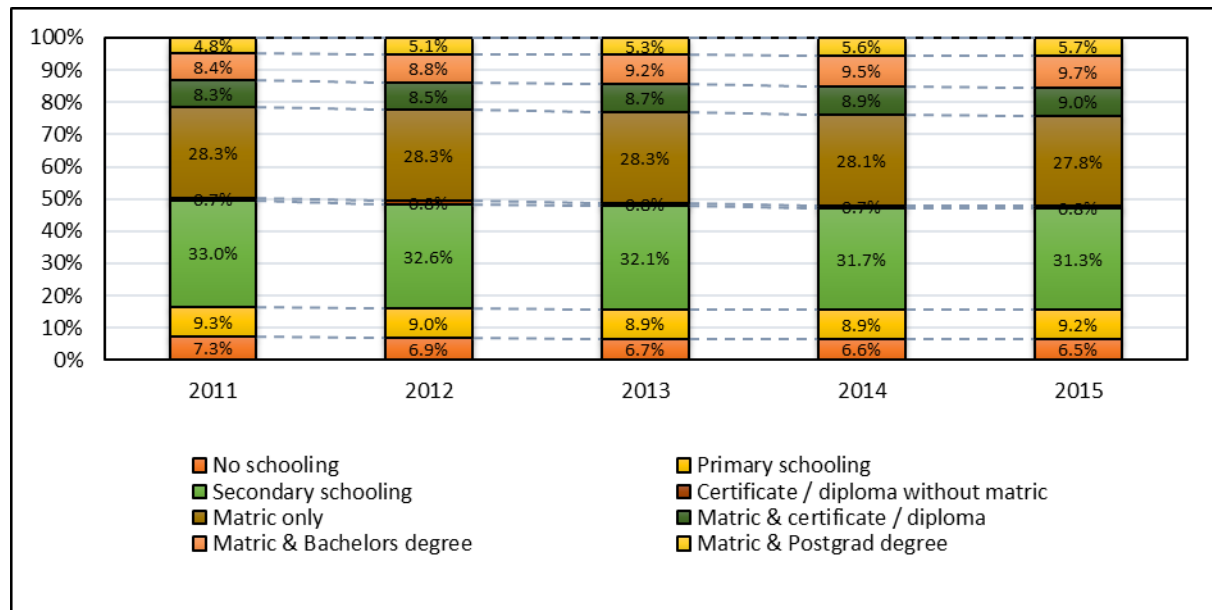


Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The above figure indicates how the educational profile of the population that is 20 years or older in Region 6 has changed over the 2011 – 2015 period. As indicated in the figure, the percentage of the people (20 years +) in Region 6 with no schooling has declined from 2.9 percent in 2011 to 2.6 percent, whilst the percentage of people with at least matric has increased from 60.8 percent in 2011 to 61.1 percent in 2015. The percentage of people (20 years +) in Region 6 with certificates or a diploma without matric has declined from 0.9 percent in 2011 to 0.7 percent in 2015.

## Region 7

Figure 1.10: Education levels in Region 7

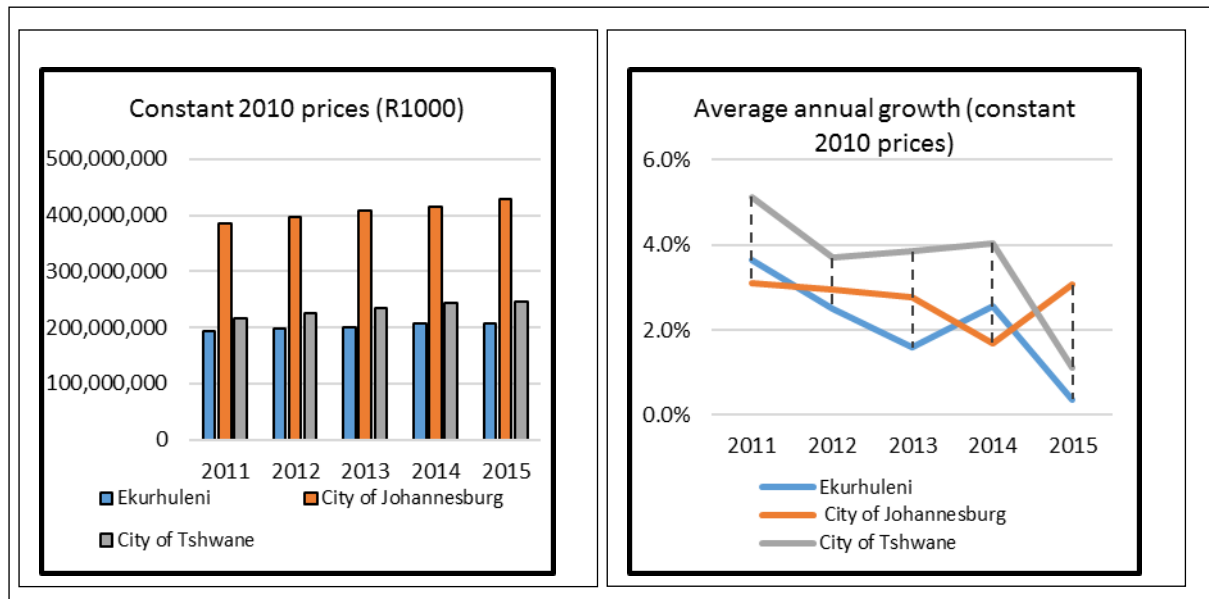


Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The above figure indicates how the educational profile of the population that is 20 years or older in Region 7 has changed over the 2011 – 2015 period. As indicated in the figure, the percentage of the people (20 years +) in Region 7 with no schooling has declined from 7.3 percent in 2011 to 6.5 percent in 2015, the percentage of people with at least matric has marginally increased from 49.7 percent in 2011 to 52.3 percent in 2015 and the percentage of people with certificates or a diploma without matric has increased from 0.7 percent in 2011 and increased to 0.8 percent in 2015.

## The economy

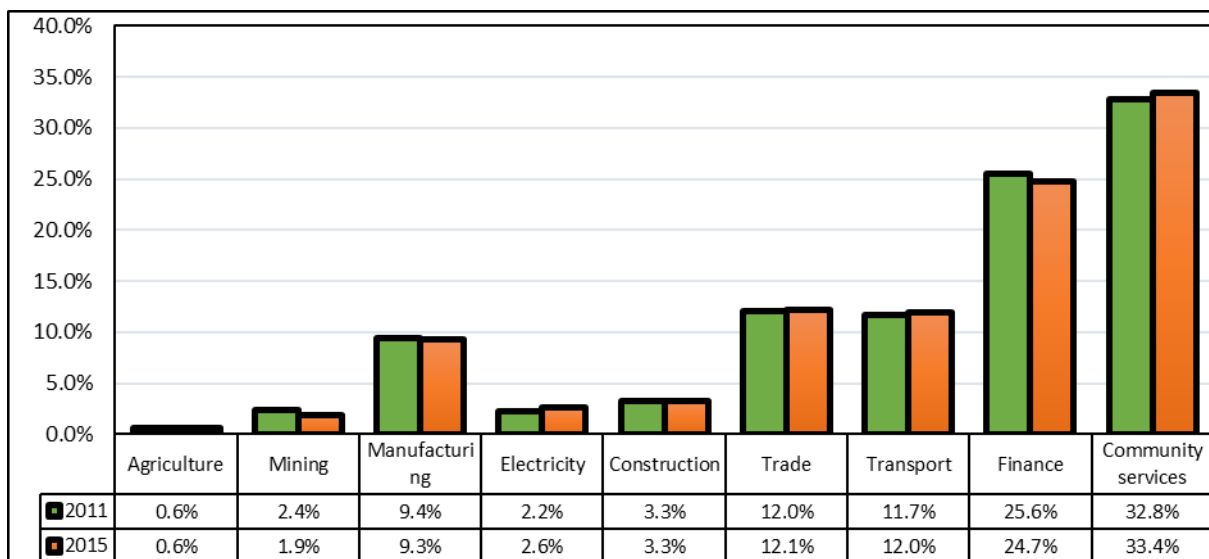
Figure 1.11: Economic overview – GVA and GVA growth



Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The City of Tshwane is the second-biggest in Gauteng in terms of gross value added by region, with an estimated GVA-R (constant prices) of R246 billion in 2015. The City of Tshwane contributed 25 percent to the provincial economy and 9 percent of South Africa's economic output in 2015. Furthermore, the economic output of Tshwane has expanded at an annual average of 4 percent per annum over the last five years, outstripping the national GDP growth average over the 2011 – 2015 period. Overall, Tshwane's average annual growth has been well above Ekurhuleni and the City of Joburg over 2011 – 2014 period. However, as indicated in Figure 1., the City of Joburg managed to surpass Tshwane by as much as 1.9 percentage points in 2015.

Figure 1.12: Tshwane's GVA-R sectorial composition, 2011 and 2015



Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

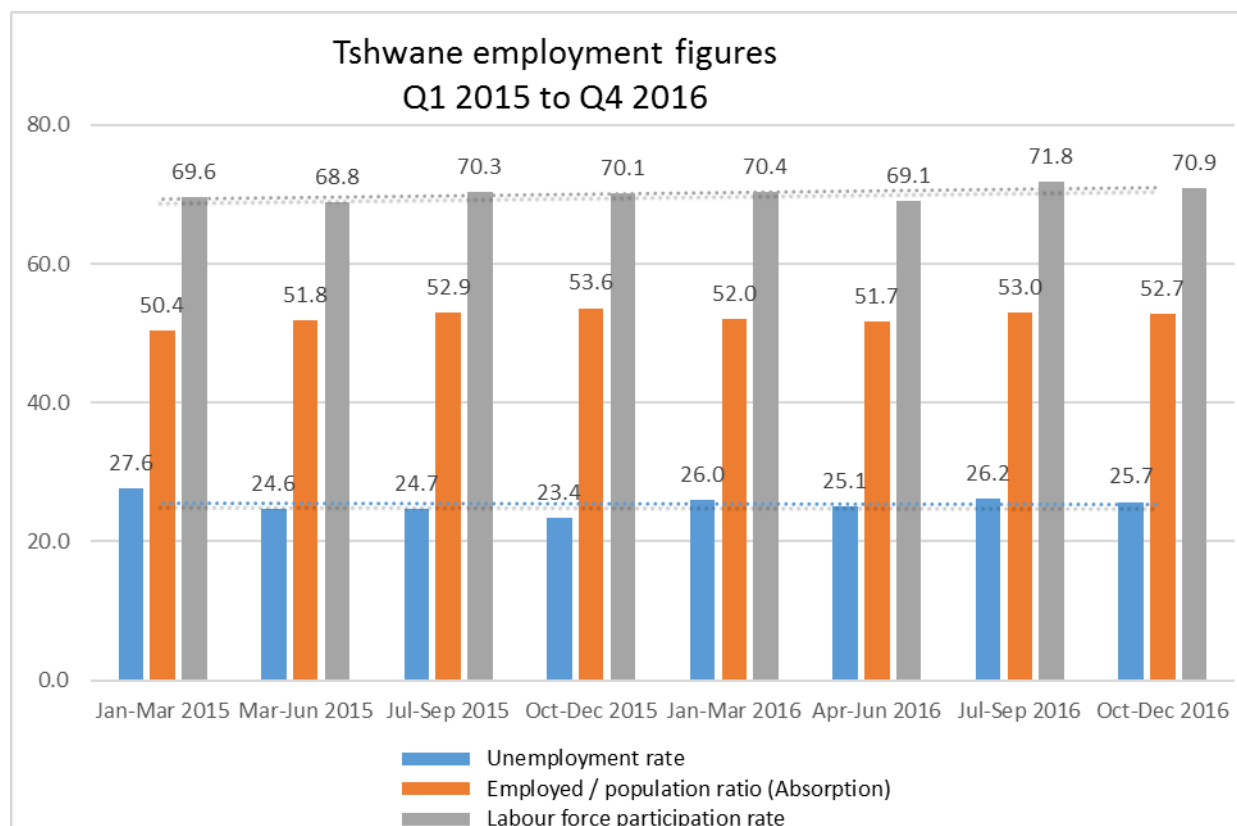
The above figure indicates the sectorial composition of Tshwane's GVA-R over the 2011 and 2015 period. As indicated in the figure, Tshwane has a large government sector (community services), the sector's estimated contribution to Tshwane's gross value added (GVA) in 2015 is at 33.4 percent up from 32.8 percent in 2011. This is consistent with the fact that Tshwane is government's administrative capital. Furthermore, other major contributors to Tshwane's GVA in 2015 are as follows;

- Finance sector (contributed approximately 24.7 percent in 2015 slightly down from 25.6 percent in 2011);
- Trade sector (contributed approximately 12.1 percent in 2015 slightly up from 12.0 percent in 2011);
- Transport sector (contributed approximately 12.0 percent in 2015 slightly up from 11.7 percent in 2011); and
- Manufacturing sector (contributed approximately 9.3 percent in 2015 slightly down from 9.4 percent in 2011).

### Labour Market

The City of Tshwane is facing high levels of unemployment, worsening inequality and abject poverty. From the below graph it is clear that the unemployment rate in the City of Tshwane has fluctuated over the last two years. It reached its lowest level in the final quarter of 2015 but has since increased, although the overall trend for the period shows a marginal decrease.

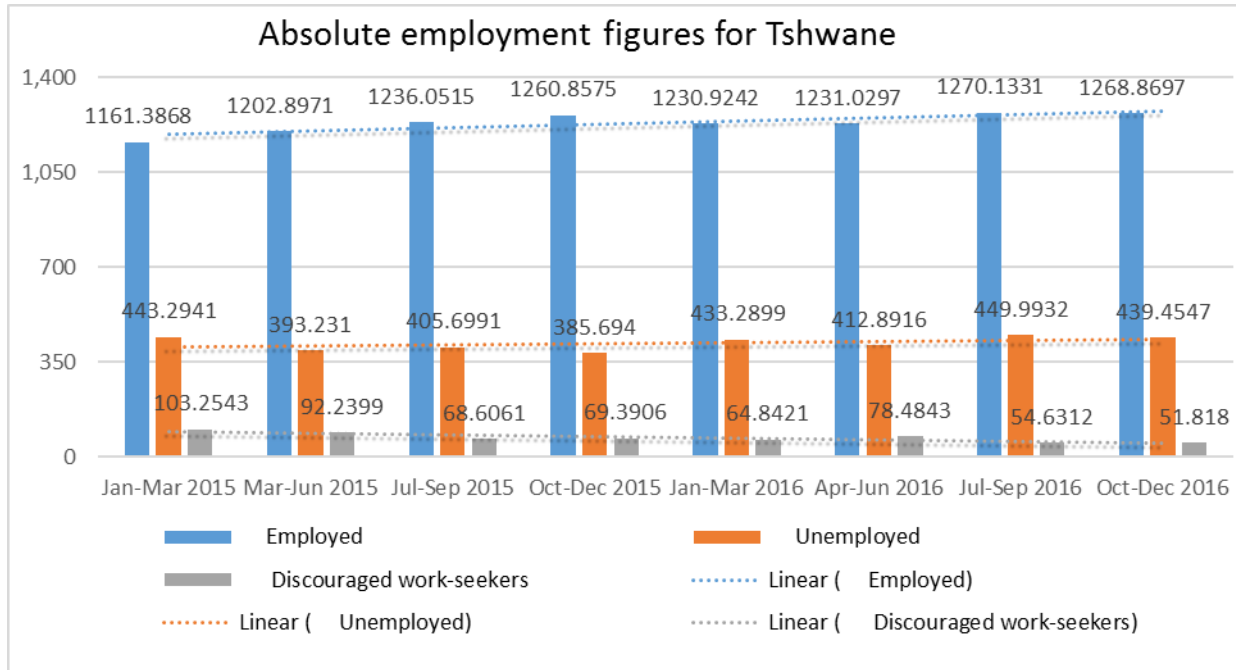
**Figure 1.13: Tshwane employment figures Q1 2015 – Q4 2016**



Source: StatsSA QLFS Trends 2008 to 2016 Q4

The absolute number of unemployed people in the City has also fluctuated and shows the same marginal decrease over the period, from 443 000 people in Q1 of 2015, to 439 000 people in Q4 of 2016, representing an overall decrease of 4000 unemployed people as is evident from the graph below.

**Figure 1.14: Employment in Tshwane by formal and informal sector, 2011–2015**



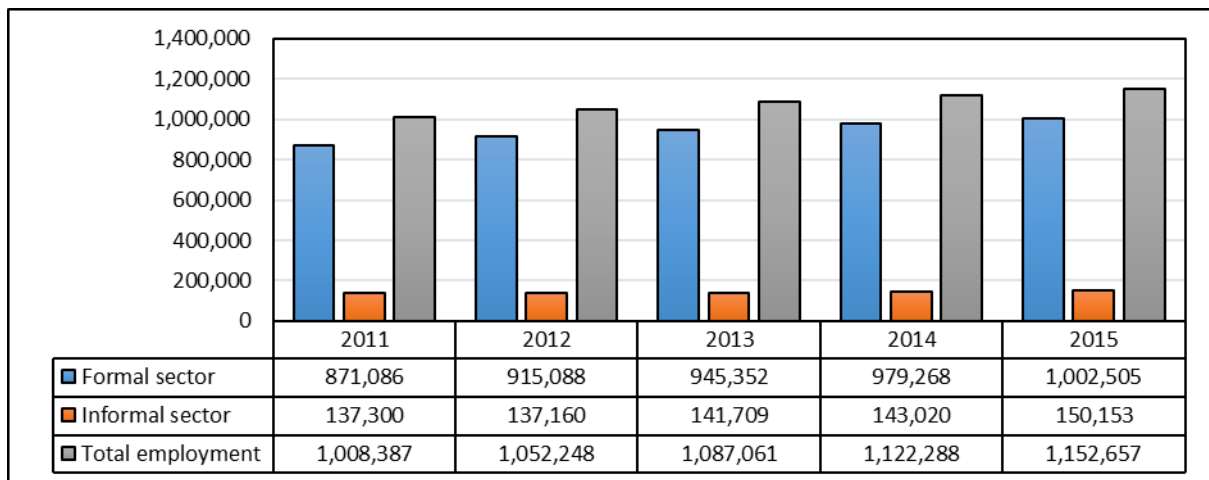
Source: StatsSA QLFS Trends 2008 to 2016 Q4

This information is notable when viewed in relation to the absolute number of those employed, the absolute number of discouraged workers and the size of the labour force in the City over the period.

There is a significant increase in the number of those employed, from 1 161 000 people in Q1 of 2015 to 1 269 000 people in Q4 of 2016, representing an increase of 108 000 new jobs; yet the absolute number of those unemployed only decreased by 4000 over this period. This can partly be explained by the decrease over the period in discouraged workers which amounts to 51 000 people – a portion of which may represent the increase in the absolute number of employed people<sup>2</sup>. A further significant factor to consider is the growth in the labour force over this period. In Q1 of 2015 Tshwane had a labour force of 1605 000 people which increased by 103 000 over the period to 1708 000 in Q 4 of 2016.

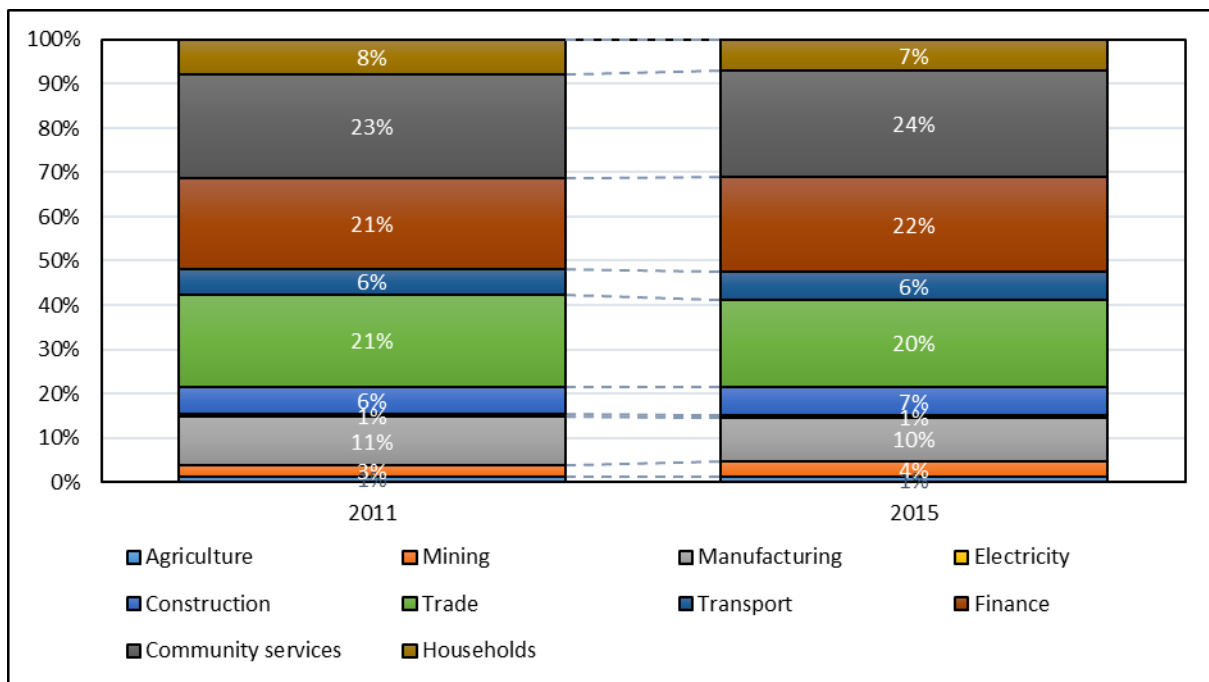
Overall this data implies that Tshwane has not created enough jobs to keep up with the growing population. Roughly the same number of people were unemployed at the beginning of 2015 as were at the end of 2016.

<sup>2</sup> This decrease could also be explained by the roughly proportional increase in the number of the labour force categorised as 'other' over this period.

**Figure 1.15: Employment in Tshwane by formal and informal sector, 2011–2015**

Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The figure above indicates the total employment in Tshwane disaggregated by formal or informal sector. As indicated in the figure, employment (in absolute terms) across both sectors in Tshwane has been steadily increasing over the 2011-2015 period. In 2011, the total number of individuals employed in Tshwane were approximately 1 008 387 and increased to 1 152 657 in 2015. As one would expect, formal sector employment contributes the largest share to total employment in Tshwane. Formal sector employment in Tshwane grew from 871 086 in 2011 to 1 002 505 in 2015 and informal sector employment grew from 137 300 in 2011 to 150 153 in 2015.

**Figure 1.16: Tshwane's year-on-year percentage change of total employment by industry (official definition), 2011–2015**

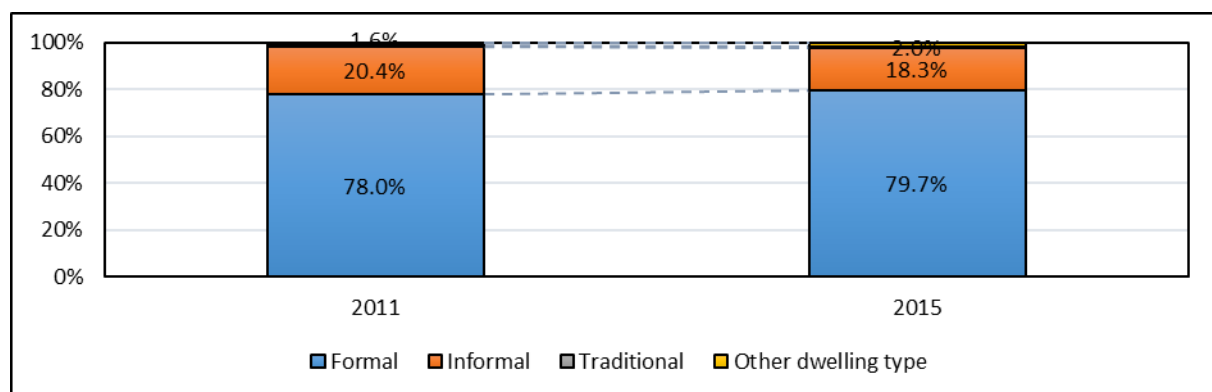
Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015



The above figure indicates total employment in Tshwane disaggregated by economic sectors over the period 2011 - 2015 period. As indicated in the figure, the community services sector, the finance sector and trade sector are the largest contributors to employment in Tshwane over the 2011 and 2015 period, contributing approximately 24 percent, 22 percent and 20 percent in 2015 respectively. On the contrary is the mining sector (3 percent in 2015) and the agriculture sector (1 percent in 2015) which appear to be the least employment contributors, i.e. 3 percent and 1 percent contribution in 2015 respectively.

## Service delivery

**Figure 1.17: Households in Tshwane by type of dwelling, 2011 and 2015**



Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015<sup>3</sup>

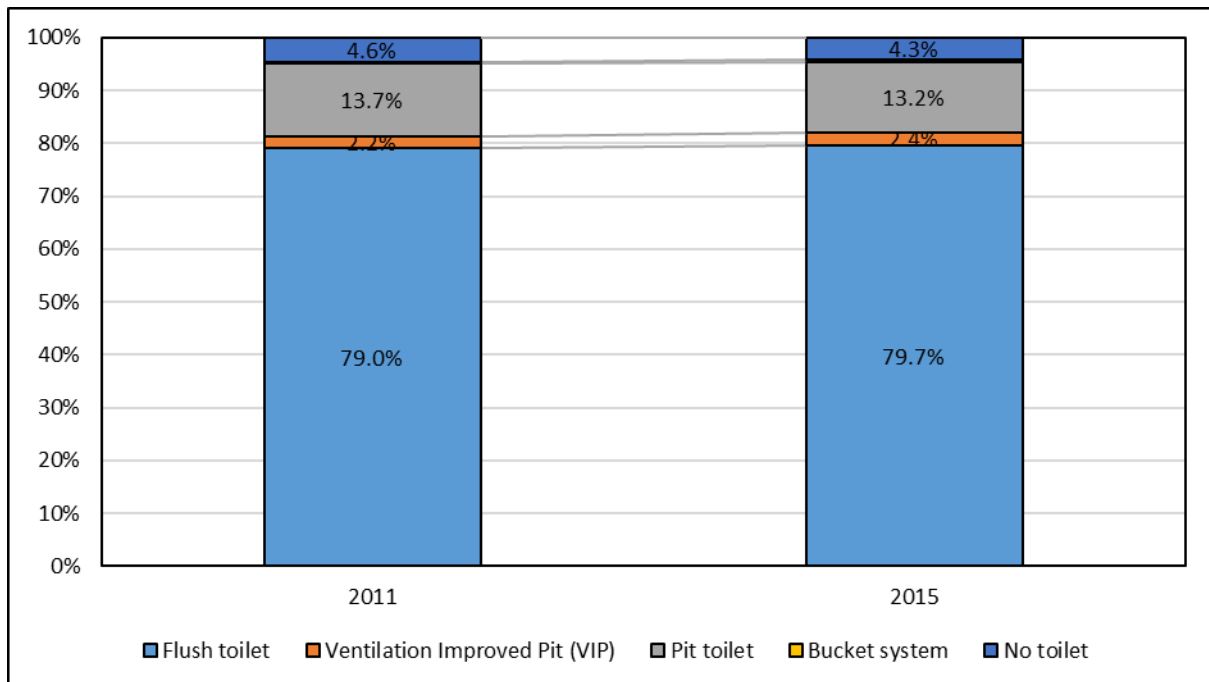
**Figure 1.1** above figure indicates households in Tshwane by type of dwelling over the 2011 and 2015 period. As indicated in the figure, approximately 78 percent of the households in Tshwane were occupying formal dwellings in 2011 and this has improved to 79.7 percent in 2015, 20.4 percent of the households in Tshwane were occupying informal dwellings in 2011 and this has improved to 18.3 percent in 2015. Traditional and other types of dwelling accounted for less than 2 percent in 2015.

<sup>3</sup> A *formal dwelling unit* is defined as a structure built according to approved plans. This category includes a house on a separate stand, flat or apartment, townhouse, room in backyard, rooms or flatlet elsewhere with or without running water or a flush toilet within the dwelling.

*Informal dwelling units:* Households that fall into this category are considered to be a makeshift structure not erected according to approved architectural plans. For example; shacks or shanties in informal settlements, serviced stands or proclaimed townships or shacks in the backyards of other dwelling types.

*Traditional dwelling units:* Households that fall into this category are considered to be a dwelling made of clay, mud, reeds or other locally available materials. This is a general term that includes huts, rondavels, etc. Such dwellings can be found as single units or in clusters. StatsSA notes that rondavels constructed with concrete blocks or stone walls are not considered traditional.

*Other dwelling units:* Units that do not fall into any of the above categories. Some of the dwelling units included in this category include tents, ships and caravans

**Figure 1.18: Households in Tshwane by type of toilet facilities, 2011 and 2015**

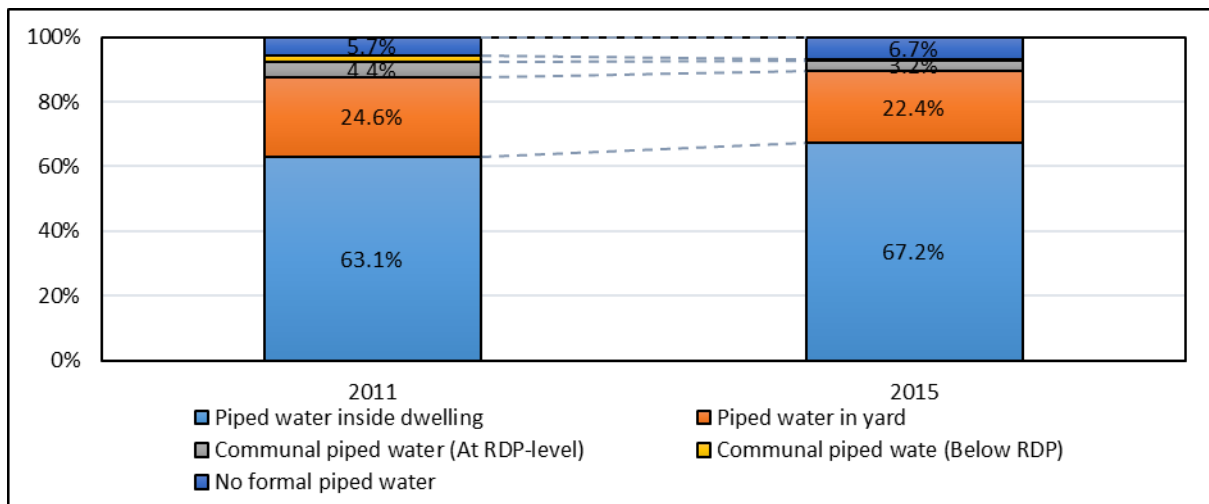
Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The above figure indicates households in Tshwane by the type of the toilet facility that is accessible to households over the 2011 and 2015 period. As indicated in the figure, the percentage of households with a flush toilet in Tshwane has slightly increased from 79 percent in 2011 to 80 percent 2015.

The percentage of households with a ventilation improved pit (VIP) slightly increased from 2.2 percent in 2011 to 2.4 percent in 2015, the percentage of households with pit toilets declined from 13.7 percent in 2011 to 13.2 percent 2015 and the percentage of households utilising the bucket system or that have no toilet facilities declined from 5.0 percent in 2011 to 4.7 percent in 2015.

Whilst this recorded increase is noted, the increased in the number of informal settlements has also increased. This means that not all informal settlements are receiving a rudimentary service in the form of potable water and a sanitation service. According to the informal settlement recount that was done post the elections of 2016, the city had 173 informal settlements. Of these, only 133 are receiving potable water service from the City in the form of JoJo tanks and communal standpipes, while only 76 are receiving a sanitation service. This emphasises the backlogs and the need to invest more in restoring the dignity of the residents in informal areas<sup>4</sup>.

<sup>4</sup> The reported number of informal settlements with an access to water and a sanitation service is as per the manual count and survey that was done by the Housing and Human Settlements department in the City.

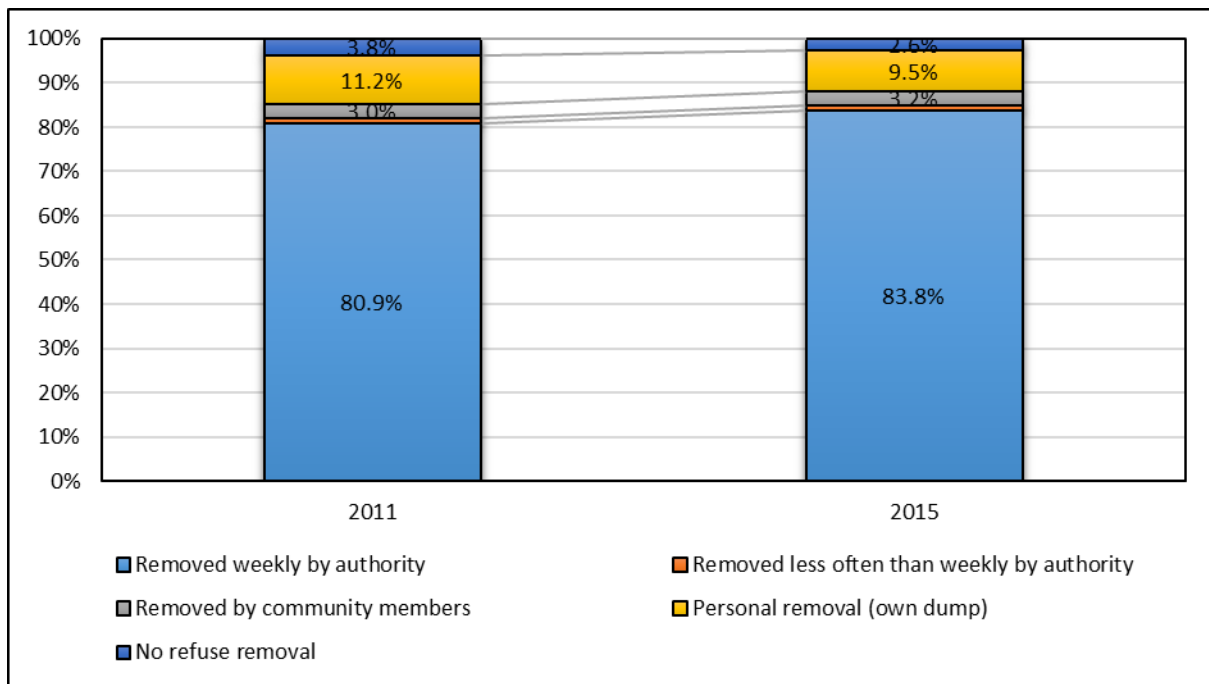
**Figure 5: Households in Tshwane by water access level, 2011 and 2015**

Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015<sup>5</sup>

The above figure indicates households in Tshwane by water access level (i.e. the available water infrastructure utilised by households in proportion to the total number of households in Tshwane). As indicated in the figure, the percentage of households in Tshwane with access to piped water inside dwelling has increased from 63.1 percent in 2011 to 67.2 percent in 2015, the percentage of households with access to piped water in yard has declined from 24.6 percent in 2011 to 22.4 percent.

The percentage of households with access to communal piped water at RDP level has declined from 4.4 percent in 2011 to 3.2 percent in 2015, the percentage of households with access to communal piped water below RDP level has declined from 2.1 percent in 2011 to 0.5 percent in 2015, and the percentage of households with no access to formal piped water increased from 5.7 percent in 2011 to 6.7 percent in 2015.

<sup>5</sup> Households at or above the RDP level are not considered to be part of the water supply backlog. Above RDP level includes all households that have access to piped water within their dwelling, within their yard or within 200 metres of their dwelling.

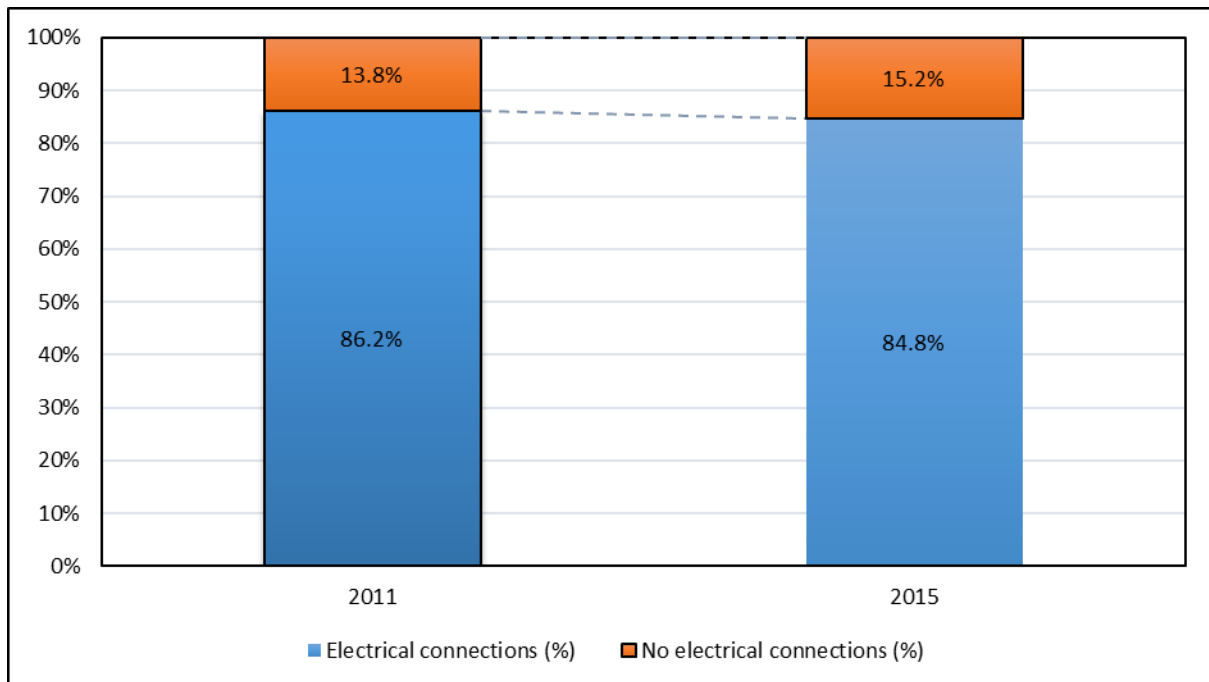
**Figure 1.20: Households in Tshwane by refuse removal service, 2011 and 2015**

Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The above figure indicates households in Tshwane by the type of refuse removal service accessed over the 2011 – 2015 period. As indicated in the figure, the percentage of households in Tshwane with access to refuse removal service by the City on a weekly basis increased from 80.9 percent in 2011 to 83.8 percent in 2015, the percentage of households with access to refuse removal service by the City for less often than weekly declined from 1.2 percent in 2011 to 1.0 percent in 2015.

The percentage of households with access to refuse removal service by community members increased from 3.0 percent in 2011 to 3.2 percent in 2015, the percentage of households utilising personal refuse removal efforts (own dump) decreased from 11.2 percent in 2011 to 9.5 percent in 2015 and the percentage of households with no access to refuse removal services declined from 3.8 percent in 2011 to 2.6 percent in 2015.

**Figure 1.21: Households in Tshwane with electrical connections, 2011 and 2015**



Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015<sup>6</sup>

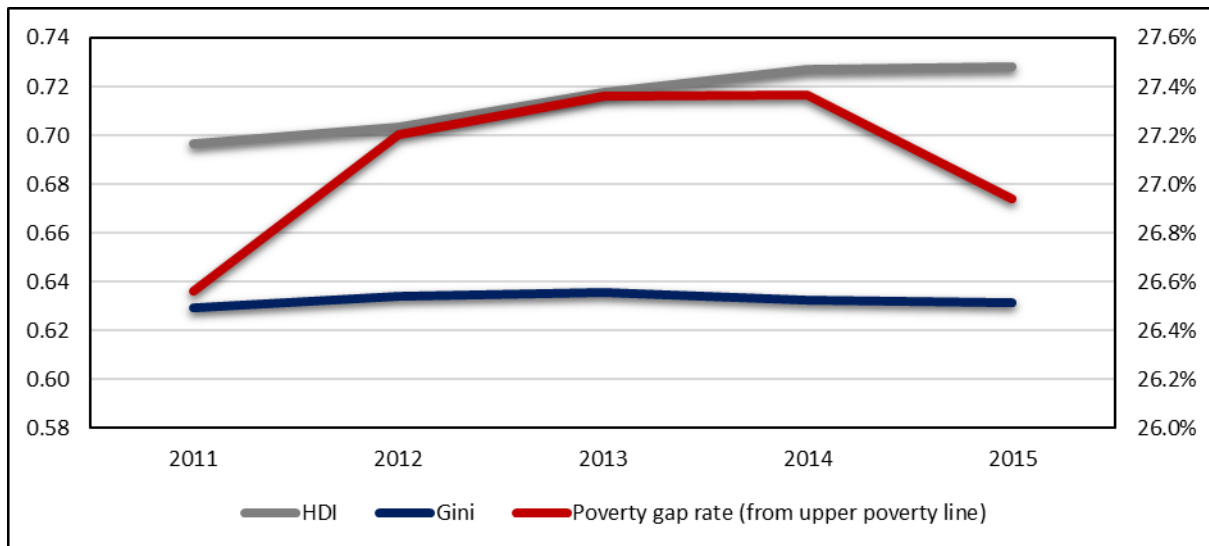
The above figure indicates the percentage share of households with electrical connections in Tshwane. As indicated in the figure, in 2011, approximately 86.2 percent of the households were connected to electricity and this percentage share has since declined to approximately 84.8 percent in 2015.

This decline can be attributed to that the total number of households occupying formal dwelling units over the 2011 -2015 period increased by approximately 7 percent compared with an increase of approximately 36 percent for households occupying informal dwelling units in Tshwane.

<sup>6</sup> A household has access to an electrical connection if they make use of electricity for lighting and other purposes

## Welfare indicators

**Figure 62: Performance of welfare indicators (HDI, Gini coefficient and poverty gap rate) in Tshwane, 2011 – 2015**



Source: IHS Global Insight, Regional eXplorer 1029 (2.5w), 2015

The above figure, indicates the performance of social welfare indicators (Human development index, Gini coefficient and the Poverty gap rate) relating to Tshwane for the period 2011– 2015. The Human Development Index (HDI) is a composite relative index used to compare human development across population groups or regions. HDI is the combination of three basic dimensions of human development which are: long and healthy life; knowledge and a decent standard of living. Tshwane HDI improved from 0.70 in 2011 to 0.73 in 2015.

The Gini coefficient is a summary statistic of income inequality, which varies from 0 to 1. If the Gini coefficient is equal to zero it means that incomes are distributed in a perfectly equal manner, indicating a low variance between high and low income earners in the population. If the Gini coefficient is equal to one, income is completely inequitable, with one individual in the population earning income, whilst everyone else earns nothing. The Tshwane Gini coefficient has remained unchanged over the 2011 -2015 period at 0.63.

The poverty gap rate is used as an indicator to measure the depth of poverty. The gap measures the average distance of the population from the poverty line and is expressed as a percentage of the upper bound poverty line, as defined by StatsSA<sup>7</sup>. As indicated in the figure, the poverty gap rate has worsened from 26.6 percent in 2011 to 26.9 percent in 2015.

<sup>7</sup> The upper poverty line is defined by StatsSA as the level of consumption at which individuals are able to purchase both sufficient food and non-food items without sacrificing one for the other.

## 2. STRATEGIC INTENT

### Introduction

This chapter presents the vision for the City of Tshwane. The vision, governance values and the strategic pillars as presented in this chapters and subsequent chapters thereof are complementary to the National Development Plan and its vision statement which in part sets the vision for the future as it states regarding 2030:

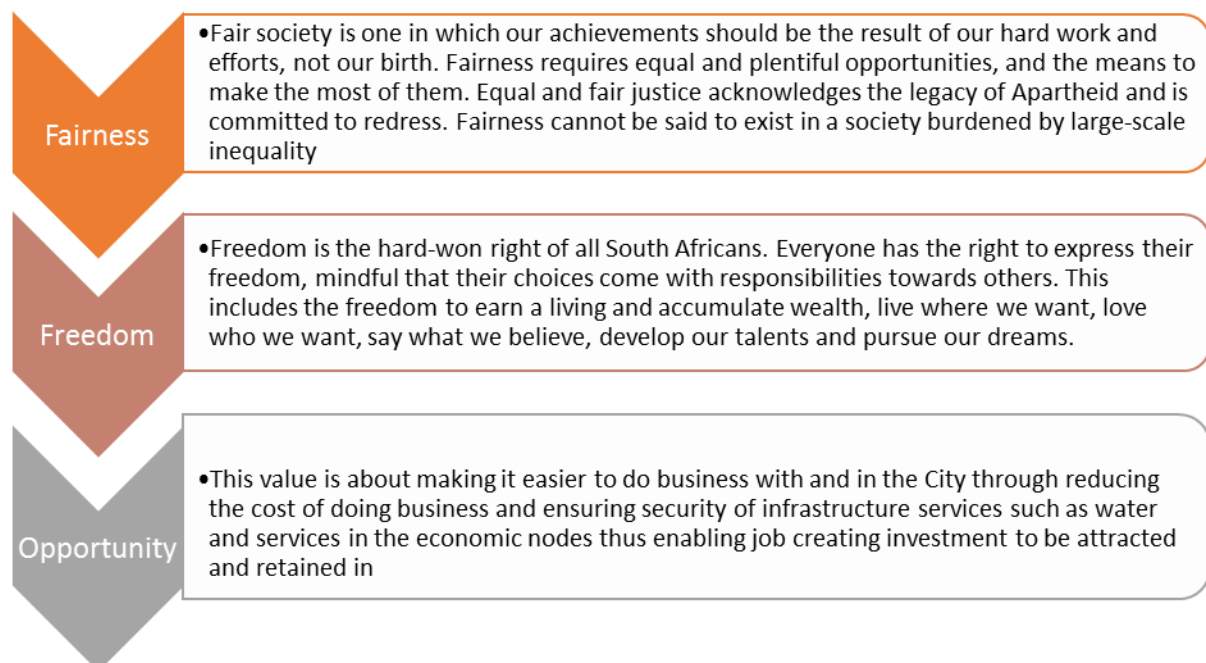
*“.... Now in 2030 we live in a country which we have remade.”*

### City of Tshwane 2030 Vision

This IDP document presents the desired vision for 2030:

***Tshwane: A prosperous Capital City through fairness, freedom and opportunity.***

The new vision of the City of Tshwane capitalises on our position as SA’s Capital of opportunity and on is bedded on the values of fairness, freedom and opportunity. The diagram below articulates our meaning in applying these values.



The achievement of the vision as stated above depends on embedding the above governance values in the plans and actions of the city and its partners. In fact, these

the above principles can only propel the city towards its vision provided that the following strategic pillars for development are embraced: 1) economic growth and job creation, 2) create a caring environment and promotes inclusivity; 3) delivering excellent services and protects the environment; 4) keeping the residents safe and 5) being open, honest and responsive. These are discussed in detail in the subsection below.

## Strategic Pillars for 2017/21

The following are the strategic pillars that guide the development and the implementation over the next term of office:

**A City that Facilitates Economic Growth and Job Creation:** The City's plan for the next five years will be creating a City of opportunity. The plan centres around five focus areas we believe will create economic growth which is labour absorbing, will provide many more residents with new employment opportunities and further the development of the City. Making it easier to do business, supporting entrepreneurship, empowering individuals, investing in infrastructure and encouraging new industries will lead to economic growth and employment.

**A City that Cares for Residents and Promotes Inclusivity:** The City of Tshwane is committed to redressing historical injustices and addressing the neglect of poorer communities by the previous administration.

Many communities in the City of Tshwane do not have access to basic services and still experience the spatial legacy left by apartheid on a daily basis. Although some gains have been made to improve service provision to poorer communities since 1994, too many people still do not have access to formal services, live far away from job opportunities and don't have access to basic health care services.

There are more than 170 informal settlements in Tshwane with varying level of services. This have led to many people living in poor conditions without access to adequate sanitation, running water or electricity. Informal areas were left dirty without regular refuse removal or area cleaning. The City is committed to addressing these challenges over time in order to redress our hurtful past and provide people dignified living spaces.

**A City that Delivers Excellent Services and Protects the Environment:** In order to achieve suitability in the City service delivery needs to be improved and expanded in a sustainable manner. Water and energy resources along with the environment needs to be protected.

The City is committed to redressing historical unequal service provision and addressing inherited delivery backlogs. The City is working towards providing quality services to all residents, adopting innovative solutions to service



delivery challenges, and reprioritizing resources to where they are needed most. The provision of services also includes the delivery of housing opportunities.

**A City that Keeps Residents Safe:** Ensuring the safety and wellbeing of residents is one of the key priorities of the City. Residents need to feel safe and be safe in the City they call home. Drug abuse and related crime is currently one of the biggest challenges faced by the City.

**A City that is Open, Honest and Responsive:** The City is committed to transparent and accountable governance with zero tolerance for corruption. City processes and systems will be run in an open and effective way and only the best officials will be retained and attracted to improve the City's performance. The City prioritises being responsive to residents, to work together on the issues that impact communities to find solutions.

## **Pillar 1 – A City that Facilitates Economic Growth and Job Creation**

For Tshwane to be a City characterised by Opportunity, Caring and Inclusivity, Sustainability, Safety and Cleanliness, Openness and Honesty, and Communication, this development plan for the next five years cannot ignore addressing these challenges in any of its pillars.

It is, however, undeniable that job-creating economic growth forms a central, if not the most important part of the solution to this triple threat. Economic growth that allows businesses to expand and start-ups to succeed will create more employment opportunities in the City. Vitally, it is this employment, which empowers more individuals and their families and dependents with an income. The economic empowerment, linked to making a dependable income, will radically change the lives of the City's residents who were previously unemployed and facing daily struggles linked to poverty and inequality.

As discussed in Chapter 1 of this document, overall data implies that Tshwane has not created enough jobs to keep up with the growing population. Roughly the same number of people were unemployed at the beginning of 2015 as were at the end of 2016.

Each unemployed resident represents an individual who cannot realise economic empowerment as well as a potential family with one less bread winner. While the trend over the last two years is ultimately positive, the City of Tshwane can and must do more toward enabling much more rapid economic growth that can create jobs and meaningfully reduce the absolute number of residents who do not have job.

The government of Tshwane also recognises that promoting economic growth and development is one of the key mandates of local government.

This mandate and the static absolute unemployment figures, when viewed together, make it clear that the City must focus its efforts, in terms of the local economy, on measure which will bring about significant labour absorptive economic growth.

To do this, issues which prevent new business start-ups or the expansion of existing companies, must be actively tackled. Some of the challenges that the City can and will address include:

- The structural barriers for the entry of youth into the economy, such as a lack of financing or work experience.
- Ensuring that regulation does not unnecessarily hinder job creation and that bureaucratic processes do not hold back growth.
- The need for better maintained and/or refurbished bulk services (including water and electricity service provision).
- The need for bulk services and infrastructure to be extended to previously unserved/informal communities.
- The need to recognise and support the informal sector as part of a developing economy.
- Identifying those sectors which the City has comparative or competitive advantage in to further diversify the local economy.

In addition to the above focus on removing barriers for new and existing businesses, the City also recognises that it can and should play a role in directly supporting individuals to find employment. This will be partly achieved through addressing the structural barriers individuals face when trying to start their own businesses. There are also a number of other interventions which the City can explore to help Tshwane's unemployed residents take advantage of economic opportunity.

This is why a key pillar of the City's plan for the next five years will be creating an Opportunity City. The plan centres around five focus areas we believe will create economic growth which is labour absorbing, will provide many more residents with new employment opportunities and further the development of the City.

Under this pillar the City undertakes to:

- Attracting investment and encouraging growth by making it easy to do business in Tshwane
- Revitalising and supporting Tshwane's entrepreneurs
- Empowering individuals to take advantage of opportunity
- Infrastructure-led growth as a catalyst and to revitalize existing nodal economies
- Encouraging tourism and recreation

### **Priority 1: Attracting Investment and encouraging growth by making it easy to do business in Tshwane**

Inefficient and irrelevant local government regulation can delay business operations and expansions severely and can carry a high cost, not only in monetary terms for businesses, but in the potential employment growth lost. The new administration in

Tshwane plans to focus significant attention on ensuring the City can be an economic growth hub.

### **Action 1: Making Investment Simple and Easy**

- Delays in approving planning and land use applications, connection to utilities and rate clearance certificates can be significantly cost-prohibitive for businesses. Over the next term the government will modernise, including with the use of e-planning systems, the bureaucratic processes associated with these applications. The main aim of this system-overhaul will be ensuring that applications can be approved within legislated time frames, or sooner, allowing businesses to establish themselves or expand more rapidly.
- During this term of office, a broad audit of all policies and by-laws which impact businesses will be undertaken to ensure they serve a relevant purpose. Those which do not, and simply create more red tape and barriers for business growth, will be repealed.
- Incorrect billing and prohibitive tariffs can seriously impact on the cash flow of businesses, especially smaller and medium businesses. The City will prioritise an overhaul of the billing system over the next five years, including through the use and integration of E-Systems, to ensure that all businesses and residents are billed correctly and fairly.
- Create an Investment Promotion Unit which assists with investment facilitation in terms of land use applications, connection to utilities, rates clearance certificates and other compliance.
- The Mayor's office will create and capacitate a business investment unit. This unit will ensure that applications which pertain to investment that is particularly labour absorptive is fast-tracked. This unit will prioritize assistance to high value investments which create a significant number of jobs.
- The City will continue to roll out ICT network solutions which can improve the efficiency of doing businesses as well as lower the associated costs.

## **Priority 2: Revitalising and supporting Tshwane's entrepreneurs**

To address the challenges mentioned above the City must also provide support to existing business, from micro informal traders to small to medium firms. These businesses are also vital in the fight against poverty, unemployment and inequality.

### **Action 1: Enabling the informal Trader**

- Reimagining spatial planning to accommodate the dual economy, formal and informal. This will require the City to understand where it is most appropriate and beneficial for informal traders to operate and roll out more services and facilities, including regular refuse removal, sanitation solutions, safety and security and access to water accordingly. Storage solutions, like lock up units in trading hubs will be investigated.

- Another key to the success is providing traders with security of tenure. The City will explore a myriad of options for doing this, such as mapping ‘lots’ in major informal trading hubs and ensuring that these lots are allocated to traders for a specific period as per their operating license. This essentially guarantees each licensed trader the use of the same area for trade over the duration of their license.
- The Tshwane government will consider the use of GIS and other technologies to establish hubs or trade corridors in areas or along routes which have significant foot traffic.
- The City will work hard over the next term to ensure that informal street traders can operate in a more enabling environment. The first step is getting licensing for traders right. The City will explore a number of options, including E-Systems accessible via mobile devices to apply, amend or renew trading licenses. Licensing would also include guaranteed trading spaces or lots. The City will endeavour to charge fair licensing structure.
- The City will ensure the focus of law enforcement in terms of the informal economy shifts to facilitation. Law enforcement will assist informal traders to follow relevant by-laws as well as health and safety guidelines, while assisting with the resolution of disputes between different stakeholders.
- Stakeholder Engagement will be facilitated by the City so that different informal trading associations can raise concerns for constructive dialogue.

## **Action 2: Supporting small and micro business to have longer life-spans and increased turnover**

- Connecting SMMEs with the Investment Promotion Unit to ensure they have access to opportunities related to current and future investment programmes.
- Overhauling all City-run skills provision programs to ensure they are more efficient and relevant including by adjusting their design to allow for a monitoring and evaluation feedback loop. This will allow the City to assess how businesses which were recipients of support have fared, including subsequent challenges they were faced with, and use this information to adjust the skills programs accordingly.
- Supporting small-hold agricultural producers with industry-specific business skills by leveraging the overhauled skills provisions programs mentioned above.

## **Priority 3: Empowering individuals to take advantage of opportunity**

### **Action 1: Empowering individuals**

- The City will pilot a ‘Job Centre’ program over the term. The aim of this centre will be to assist and empower Tshwane’s unemployed residents find and take advantage of employment and/or business opportunities. The centre will act as a hub for those seeking assistance to find work providing services including but not limited to, assistance with applications and CVs, career and skill-pathing advice, collated information on available employment opportunities in the City as well as support for small and micro businesses in terms of compliance with City regulation. Vitally the job Centre program will link with the Investment Promotion

Unit allowing it to inform unemployed residents about new investment ventures and the associated job opportunities they create.

## **Priority 4: Infrastructure-led growth as a catalyst and to revitalize existing nodal economies**

### **Action 1: Addressing the City's Infrastructure challenges**

- Expand, upgrade and refurbish water, electricity, road networks and public transport, where necessary, to allow for greater commercial activity across the City. This will also serve to catalyse economic activity in 'Township' economies by creating a more conducive business environment through the delivery of expanded and reliable services and transport links. Spatial design with regard to service delivery and infrastructure expansion to these areas will require earmarking land for potential commercial activity as these economies begin to expand.
- Develop and roll out a plan for freight transport in the metro, based on sound spatial planning principles and linked to information about new investments and opportunities.

### **Action 2: Address Infrastructure and service delivery inadequacies which are preventing existing or fledgling industries from growing and/or threatening their survival.**

- Focus specific infrastructure interventions in areas where there is existing industry which is inhibited by the current level of infrastructure and service delivery. These interventions will focus on ensuring bulk service delivery which is reliable and encourages established businesses to further invest in these areas.

The following areas have been identified as those with the highest return on investment (where return is calculated as potential job growth).

- Rosslyn
- Ekandustria (eKangala)
- Watloo

Related spatial planning, in terms of human settlements, will focus increased demand for housing as close as possible to existing urban areas, public transport routes and service delivery infrastructure.

## **Priority 5: Encouraging Tourism and Recreation**

### **Action 1: Aligning tourism industry efforts in the City to meet strategic demand**

- Encourage and support the local tourism industry to focus on attracting domestic and international visitors who have government-related business in the capital or those visiting higher education institutions.
- Collaborate with the tourism industry to advertise and promote local accommodation ahead of cultural, sport or governmental events.
- Partner with existing recreational facilities to maximize the number of events hosted in the City.
- Investigate zoning possibilities which encourage recreational and cultural activities after working hours in the City Centre.

## **Pillar 2 – A City that Cares for Residents and Promotes Inclusivity**

The City of Tshwane is committed to redressing historical injustices and addressing the neglect of poorer communities by the previous administration.

Many communities in the City of Tshwane do not have access to basic services and still experience the spatial legacy left by apartheid on a daily basis. Although some gains have been made to improve service provision to poorer communities since 1994, too many people still do not have access to formal services, live far away from job opportunities and don't have access to basic health care services. The extent of the challenge is discussed in detail in Chapter 1 of this document.

The City is committed to addressing these challenges over time in order to redress our hurtful past and provide people dignified living spaces.

In order to create a caring and inclusive City service delivery to informal settlements will be prioritised. Those who cannot afford to pay for services will be supported by the City and access to public health care services will be improved. The City is also committed to addressing the special legacy of apartheid by developing more integrated communities and rolling-out affordable and reliable public transport. A caring and inclusive Tshwane also reflects our heritage through space making that embraces our shared heritage, thus building a socially cohesive and integrated communities.

In order to achieve this; redressing our unequal past, reducing backlogs, improving access to housing opportunities and protecting our natural resources the following challenges need to be overcome:

- Severe backlogs in basic service provision to informal settlements.
- The growing number of vulnerable residents that do not have access to job opportunities and cannot afford basic services.
- Communities that are separated and living far away from each other.
- Not enough access to safe, affordable and reliable public transport.
- Poor access to City-run health care services.

All these challenges speak to a City that needs to become more caring and look after vulnerable residents that face severe challenges. Under this pillar the City undertakes to:

- Upgrading of informal settlements
- Supporting vulnerable residents
- Building integrated communities
- Promoting safe, reliable and affordable public transportation
- Improving access to public health care services

## **Priority 6: Upgrading of informal settlements**

Too many communities in the City do not have access to quality basic services and live in underdeveloped areas. Residents in many informal settlements still only have access to rudimentary water and sanitation service, infrequent refuse removal and area cleaning and do not benefit from adequate infrastructure upgrades.

The City aims to address this as a matter of priority in a systematic way as a redress initiative. The City currently has 173 informal settlements of which the majority have no access or receive rudimentary basic services. This is wholly unacceptable. The City will prioritise the upgrading of services delivered to informal settlements in order to improve the quality of life of those residents.

The City's offer to upgrade informal settlements:

### **Action 1- Mainstreaming services to informal settlements**

- Conduct an audit of service delivery standards in all informal settlements.
- Introduce a number of basic service delivery relief measures in unserved informal settlements, including access to sanitation measures where none are available, weekly door to door refuse removal and regular area cleaning.
- Prioritise the roll out of site and service upgrades on a systematic basis.
- Aiming to meet national service standards in informal areas.
- Increasing access to clean and safe drinking water.
- Improving access to the electricity grid.
- Servicing rudimentary sanitation services more regularly and aim to systematically expanding and upgrade sanitation services across informal settlements.
- Performing weekly door to door refuse removal services and conducting regular area cleaning.
- Addressing the vulnerability of residents to crime and disasters. \*Unpacked under the Safe City section.
- Establishing a back-yarder program in townships and informal settlements to serve more residents with basic services in a denser area.

### **Action 2 – Addressing the spatial development challenges of informal settlements to improve quality of life**

- Exploring re-blocking initiatives by partnering with civil society and community groups in informal areas.

- Working towards upgrading the road network in informal areas.
- Creating safe public spaces in informal areas for recreational activities.

## **Priority 7: Supporting vulnerable residents**

Many residents cannot afford basic services and need to be supported by the City. Although there is an indigent's program in place, too many qualifying residents are not registered to receive this support. The City aims to support all qualifying residents with a basket of free basic services.

The City's offer is:

### **Action 1 – Improving the indigent's support program**

- Auditing the indigent database.
- Reviewing the basket of free basic services maximize the benefit of the programme.
- Marketing the indigent's program in communities to encourage qualifying residents to register to receive the free basket of free basic services.

### **Action 2 – Providing broader support for poorer residents**

- Addressing homelessness through leveraging existing municipal property and collaborating with civil society, especially institutions of higher learning.
- Supporting those who suffer from drug and alcohol abuse.

## **Priority 8: Building Integrated Communities**

Many communities in Tshwane are not integrated and are still very homogeneous and separate. Tshwane still has the legacy of Apartheid era spatial planning, we will seek to better integrate and bring opportunities to all residents of the City, as equal citizens.

All residents should feel confident and of equal importance when engaging with the City and the broader local community.

Thus the City is striving to create integrated communities where people from all walks of life can live and work together.

The City will achieve this by:

### **Action 1- Creating spaces and housing opportunities that bring people together**

- Ensuring that urban planning and zoning seeks to densify and better integrate the City as well as providing adequate public spaces.
- Encouraging and facilitating mixed-use and mixed-income housing developments.
- Pursuing densification in appropriate areas along public transport routes.



- Establishing and maintaining inclusive community amenities such as childcare facilities, municipal halls, parks, recreational areas, cemeteries, sports grounds, markets and libraries.
- Connecting people through safe, reliable and affordable public transport.
- Prioritising safety and cleaning to attract people and business back into the city centre as part of the inner-city rejuvenation.

## **Priority 9: Promoting safe, reliable and affordable transportation system**

Safe, reliable and affordable public transportation is needed to address inequalities as well as addressing other developmental strains like increased traffic congestion.

Due to the legacy of apartheid spatial planning poorer people live far away from job opportunities and thus spend a disproportionate amount of their income on public transport. The City is aiming to realise long term intermodal transportation integration. To achieve this, land use management, provision of services and financing public transportation will need to be restructured such that it responds to the commuter and the economic demands for transportation.

The City is committed to:

### **Action 1 – Providing high quality public transportation**

- Rolling out and expanding the A Re Yeng Bus Rapid Transit System in the short term and increasing the ridership towards sustainable operation of the Tshwane Bus Company in the long term.
- Aligning rail, road and air transportation within the City and within the city-region.
- Collaborating with transport service providers and users to create a safe transportation sector and responsible use of our network and infrastructure.
- Further rolling out carbon neutral busses.
- Upgrading transportation hubs to encourage trading and other economic entities, making the spaces safer and addressing decaying facilities.

## **Priority 10: Improving access to public health care services**

The geographical layout of the City, among other factors, means that access to health care facilities in the City is currently a challenge. Due to the differences in location and income, access is determined not only by physical location of health care facilities but also by the affordability of health services. Low levels of access to decent health care leads to lower quality of life and has many knock-on effects for a productive economy.

The City's offer to address this is:

### **Action 1 – Improving City-run health care initiative**

- Developing health care capacity based on the services that are rendered by the City. This will include better integration within the public and private health systems and allocation of adequate resources to deal with communicable and non-communicable diseases.
- Partnering with communities to develop community based health care services. The intervention allows for flexible delivery of health services while it improves the distribution of health information.
- Extending operating hours of City operated health care facilities that offer primary health care over the term of office.
- Creating strategic partnerships with the knowledge and innovation institutions towards developing efficient and effective health solutions.
- Instituting excellence in the provision of health services and monitoring our health outcomes.

## **Pillar 3 – A City that Delivers Excellent Services and Protects the Environment**

In order to achieve suitability in the City service delivery needs to be improved and expanded in a sustainable manner. Water and energy resources along with the environment needs to be protected.

The City is committed to redressing historical unequal service provision and addressing inherited delivery backlogs. The City is working towards providing quality services to all residents, adopting innovative solutions to service delivery challenges, and reprioritizing resources to where they are needed most. The provision of services also includes the delivery of housing opportunities.

The City also has a responsibility to protect natural resources and the environment. In order to provide excellent services in a way that allows for sustainable expansion and development is a priority for the City. Water and energy resources should be protected in our bid to increase and improve service delivery.

The pillar covers the following priorities:

- Delivering high quality services
- Safeguarding water and energy security and protection of natural environment

### **Priority 11: Delivering high quality services**

#### **Action 1 – Delivering high quality and sustainable basic services**

- Fixing potholes and maintaining all municipal roads.
- Providing access to electricity, potable water and sanitation.
- Conducting weekly door-to-door refuse collection from formal and informal areas.
- Providing systematic area cleaning.
- Prioritising the regular maintenance and refurbishment of municipal infrastructure.

#### **Action 2 – Providing housing opportunities**

- Speeding up the delivery of subsidised housing opportunities to residents of the housing list.
- Encouraging the development of social housing and other GAP housing options by working with other spheres of government and the private sector.
- Prioritising the roll out of site and service on a systematic basis in informal settlements.
- Speeding up the transfer of title deeds to state-subsidised housing to residents have legal ownership of property.

## **Priority 12: Safeguarding water and energy security and protection of natural environment**

- In line with the national targets, the City will be moving towards zero building standards.
- Reducing greenhouse gas emissions through economic activities and provision of services.
- Protecting of the natural environment resources and assets.
- Ensuring future supply of water and energy in line with the economic and social demand.
- Continuing to promote and facilitate embedded electricity generation.
- Updating and enforce the Green Buildings by-law.
- Further rolling out carbon neutral busses.

## **Pillar 4 – A City that Keeps Residents Safe**

We acknowledge that policing is the primary responsibility of the SAPS and national government, however the City will seek to improve safety of residents. Ensuring the safety and wellbeing of residents is one of the key priorities of the City. Residents need to feel safe and be safe in the City they call home. Drug abuse and related crime is currently one of the biggest challenges faced by the City.

The City will focus on utilising the metro police and law enforcement to increase visible policing in strategic areas, addressing the metro police's ability to respond to a variety of challenges, prioritising initiatives to deal with drug abuse and protecting residents from disasters effectively.

The challenges with regards to safety and security in City are:

- High levels of crime in all communities.
- Inefficiencies in law enforcement efforts.
- Social ills in communities that are the cause and also the outcome of increased crime in communities.
- Disasters impacting communities, especially poorer vulnerable residents.

The pillar covers the following priorities:

- Creating safe communities
- Addressing drug abuse
- Protecting communities from disaster

## Priority 13: Creating safe communities

Ensuring safety of communities is an important priority for the City in order to ensure a high quality of life for residents. This entails addressing crime and the social determinants of crime with the mechanisms available to the City.

In creating safe and secure communities the City is prioritising:

### Action 1 – Improving policing and law enforcement efforts

- Overhauling specialized TMPD units to deal with a range of challenges that include drug abuse and hijacking.
- Addressing the efficacy of the TMPD.
- Increasing visible policing in crime hot-spot areas.
- Improving traffic policing to ensure the safety of commuters.
- Coordinating efforts of TMPD and Roads and Transport Department to improve road safety.
- Cooperating with the South African Police Department to have a presence in police stations to service the community better.

### Action 2 – Involving the community in making areas safer

- Enabling and supporting community safety initiatives like neighbourhood watches.
- Establishing a hotline for community members to report crime.
- Running education and awareness campaigns in schools around safety and security.

### Action 3 – Building safer communities

- Promoting safety conscious built environment through planning and maintenance of public and private spaces.
- Improving lighting in public areas.

## Priority 14: Addressing drug abuse

The misuse and abuse of drugs is a major safety and social development challenge in the City of Tshwane. This challenge affects all residents, but poorer communities are disproportionately affected due to lower levels of access to health care, higher exposure to drug related activities that leads to crime and violence and a lessened ability to seek out rehabilitation due to cost or availability. The City of Tshwane's approach will be multi-pronged looking at prevention, suppression and intervention.

The City's offer is:

### Action 1 – Drug and Substance Abuse Prevention

- Educating residents about the dangers and effects of drug abuse through information sharing and awareness campaigns.

- Expanding choices by looking at afterschool activities for young people, running youth development programmes and rolling out skills and capacity building programs.
- Investigating design interventions for new and exciting development that prevent the creation of areas that might enable drug trade and other anti-social behaviour.

### **Action 2 – Drug and Substance Abuse Suppression**

- Embarking on visible policing interventions at key strategic areas like open spaces and known drug trade hot-spots.
- Establishing specialised Units to target drug dealers and manufacturers.
- Coordinating operations with the SAPS.
- Evicting drug dealers from City-owned property, especially residential units.
- Providing a call line and other communication channels to receive tip-offs.

### **Action 3 – Drug and Substance Abuse Intervention**

- Parting with privately owned treatment sites with professional staff in order to address the rehabilitation of drug users. Utilising the Matrix clinic model, which will provide out-patient care and assistance.
- Creating an enabling environment for registered NGOs and CBOs providing services like aftercare interventions.
- Marketing the availability of these services in communities.

## **Priority 15: Protecting communities from disaster**

The City needs to be prepared for disasters that impact on communities like floods and fires. Adequate planning and quick response times are vitally important to lessen the effects of disasters on the lives of residents. The City commits to:

- Improving planning to mitigate against natural disasters and emergencies.
- Developing early warning systems towards safety and disaster management.
- Re-evaluating the disaster management and relief initiatives to aid residents in informal settlements that is left destitute by disasters.
- Improving response times for all disaster incidents

## **Pillar 5 -A City that is Open, Honest and Responsive**

The City is committed to transparent and accountable governance with zero tolerance for corruption. City processes and systems will be run in an open and effective way and only the best people will be retained and attracted to improve the City's performance.

The City prioritises being responsive to residents, to work together on the issues that impact communities to find solutions together.

In the City of Tshwane people have gone unheard for too long, queries aren't resolved fast enough and decisions were taken behind closed doors.

This is evident when you analyses the challenges of City in this regard:

- Too many contracts were entered into that is hamstringing delivery.
- Poor institutional capacity in many instance.
- Deficient customer relation management.
- Not enough transparency and accountability in government process like awarding tenders and short term employment opportunities.
- Not communicating adequately with residents.

These challenges all need to be addressed to in order to be a City that is open, honest and responsive.

The pillar covers the following priorities:

- Building a capable city government
- Fighting corruption
- Communicating regularly and effectively with residents

## **Priority 16: Building a capable city government**

### **Action 1 – Establishing professional and effective government processes**

- Delays in approving planning and land use applications, connection to utilities and rate clearance certificates can be significantly cost-prohibitive for businesses. Over the next term the government will modernise, including with the use of e-planning systems, the bureaucratic processes associated with these applications. \*as discussed on the economic section.
- Improving Customer Relation Management to ensure that residents have positive and effective customer experiences when engaging with the City.
- Ensuring that Extended Public Works Program opportunities are distributed fairly that allows for as many residents to benefit from the programme as possible.
- Ensuring that human resource processes in the City are professional and fair, and that good civil servants are retained and attracted.
- Encouraging an institutional culture of service and dedication to our communities and City.

### **Action 2 - Improving the revenue system**

- Establishing an accurate billing system.
- Striving for financial sustainability.
- Improving debt collection in order to enable the City to spend more on service provision.
- Exploring alternative sources of funding to expand the work of the City to deliver more services for more people.

## **Priority 17: Fighting Corruption**

### **Action 1 – Putting measures in place to root out corruption**

- Opening a corruption and fraud reporting line.

- Encouraging officials and residents to report any possible corruption or fraud.
- Opening the tender process at the bid adjudication stage to allow for more transparency.
- Enabling the Risk Unit further to investigate any fraud or corruption in the City.

### **Priority 18: Communicating regularly and effectively with residents**

- Regularly hosting report back meetings in all communities in order to inform residents of the work of the City.
- Prioritise public participation processes to listen to community members regarding decisions that impact on them.
- Using technology like social media creatively to reach more residents in the City's communications efforts.
- Ensuring that the ward system is functioning to allow people to provide oversight and provide input in to City business at ward level.

## **Conclusion**

In this chapter we have outlined the long term vision for the City as well as the 5 Pillars that will act as compass for development for the 2017/21 term of office. These pillars of development together with priority areas as well as the actions that support them will The test of these strategic interventions and outcomes lies in our ability to implement, monitor and evaluate or programmes and projects.

The development of the five year IDPs and the subsequent review will be used as one of the primary vehicles towards implementation of these strategic interventions. These will need to be unpacked and packaged into programmes and projects for implementation in the short to medium term. Further, the role of citizens towards making local government account will also serve as a constant reminder of our obligation towards achieving "Vision 2030" as active citizenry will play a role of monitoring our progress towards the implementation of the strategy.



### 3. GOVERNANCE AND INSTITUTIONAL ARRANGEMENTS

#### 3.1 Introduction

This chapter articulates the City's broad institutional framework in relation to the governance model and provides details on the roles and responsibilities of the constituents of the model. This includes the outline of the oversight arrangements of the Council, administrative arrangements of the City, both in terms of departments and municipal entities and the regional services model as well the role and responsibilities of the City's Shareholder Unit.

On 3 August 2016, the fourth cycle of local government started through the local government election process. The results<sup>8</sup> of the election in the City of Tshwane as published by the Independent Electoral Commission of South Africa are as follows:

**Table 3.1 Election results - City of Tshwane**

Party Name	Total Valid Votes	Total Valid Votes / Quota	Round 1 Allocation	Remainder	Ranking of Remainder	Round 2 Allocation	Total Party Seats
AFRICAN CHRISTIAN ALLIANCE-AFRIKANER CHRISTEN ALLIANSIE	1 215	0.1476	0	0.1476	11	0	0
AFRICAN CHRISTIAN DEMOCRATIC PARTY	8 721	1.0597	1	0.0597	17	0	1
AFRICAN MANDATE CONGRESS	1 290	0.1567	0	0.1567	9	0	0
AFRICAN NATIONAL CONGRESS	728 652	88.5361	88	0.5361	3	1	89
AFRICAN PEOPLE'S CONVENTION	2 568	0.3120	0	0.3120	6	0	0
AFRICAN PEOPLE'S SOCIALIST PARTY	415	0.0504	0	0.0504	18	0	0
AGANG SOUTH AFRICA	586	0.0712	0	0.0712	15	0	0
AZANIAN PEOPLE'S ORGANISATION	1 236	0.1502	0	0.1502	10	0	0
CHRISTIAN DEMOCRATIC PARTY	1 036	0.1259	0	0.1259	14	0	0
CONGRESS OF THE PEOPLE	4 322	0.5252	0	0.5252	4	1	1
DEMOCRATIC ALLIANCE	762 190	92.6112	92	0.6112	2	1	93
ECONOMIC FREEDOM FIGHTERS	205 406	24.9582	24	0.9582	1	1	25
FORUM 4 SERVICE DELIVERY	554	0.0673	0	0.0673	16	0	0
INKATHA FREEDOM PARTY	1 082	0.1315	0	0.1315	13	0	0
MOVEMENT DEMOCRATIC PARTY	104	0.0126	0	0.0126	20	0	0

<sup>8</sup> Source: IEC SA website [www.elections.org.za](http://www.elections.org.za)



PAN AFRICANIST CONGRESS OF AZANIA	3 036	0.3689	0	0.3689	5	1	1
PATRIOTIC ALLIANCE	1 202	0.1461	0	0.1461	12	0	0
UNITED DEMOCRATIC MOVEMENT	2 046	0.2486	0	0.2486	8	0	0
UNITED FRONT OF CIVICS	263	0.0320	0	0.0320	19	0	0
VRYHEIDSFRONT PLUS	35 210	4.2783	4	0.2783	7	0	4
<b>Total</b>	<b>1 761 134</b>		<b>209</b>			<b>5</b>	<b>214</b>

From the above table, there are seven political parties represented in the newly elected council. They are in order of number of seats:

1. Democratic Alliance;
2. African National Congress;
3. Economic Freedom Fighters;
4. Freedom Front Plus;
5. African Christian Democratic Party;
6. Congress of the People; and
7. Pan Africanist Congress of Azania.

During the previous term, the Tshwane Metropolitan Municipal Council adopted a governance model which aims to separate the roles and functions of the legislative and executive wings of the Council. The rationale for implementing the model included the following:

- The need to enhance service delivery through improving the institutional arrangements of the City;
- Improved oversight of the Council through the development of oversight committees; and
- Allowing for an interactive decision-making process in the executive and legislative arms of the Council.

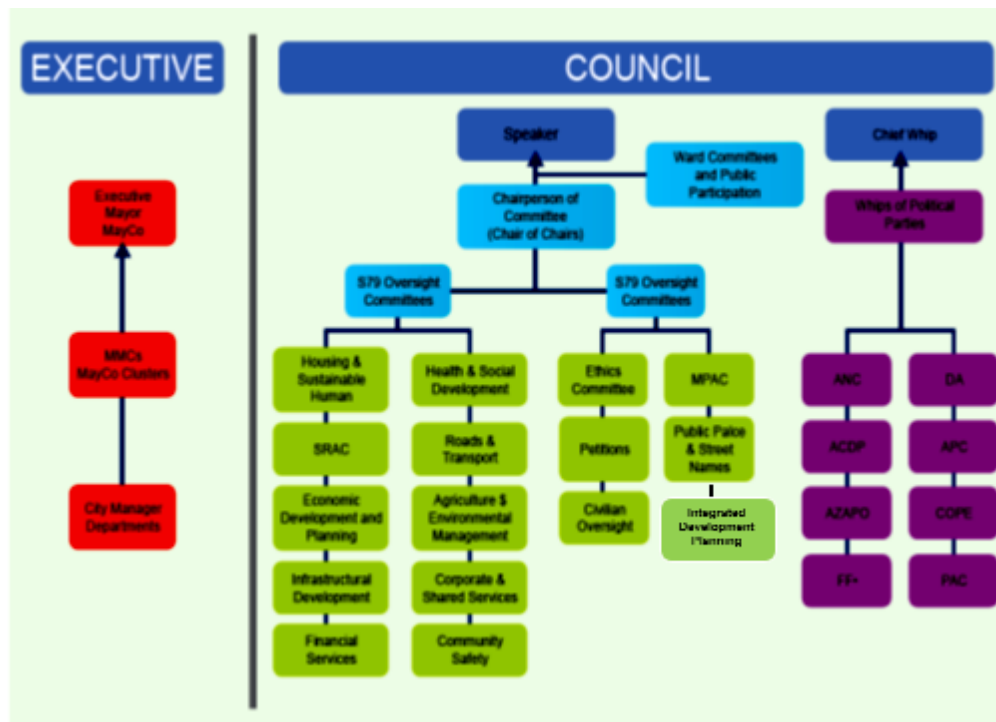
## City of Tshwane governance model

The governance model adopted by the Council during the previous term, consists of the legislature, made up of the Speaker of Council, Chief Whip and Section 79 Portfolio and Standing Committees; the executive branch consists of the Executive Mayor and Members of the Mayoral Committee (MMCs) and the administration, which is led by the City Manager. This model has been implemented and consistently applied in the affairs of the City.

The model intends to ensure that the City executes its functions through the leadership of the Executive Mayor while the legislature oversees the activities of the executive branch for transparency and accountability.

The following diagram depicts the City of Tshwane's governance arrangements.

Figure 3.7: Tshwane governance structures



## Legislature

The legislature consists of the Council, the Speaker of the Council, Councillor Rachel Mathebe; the Chief Whip, Councillor Christiaan van den Heever, and two sets of Council committees: Section 79 portfolio committees and standing committees.

### a) Council

The Council consists of 214 elected councillors, of which 107 are ward councillors and 107 are proportional representation councillors. The role of the Council, in line with the Municipal Systems Act, 2000 (Act 32 of 2000), is to engage in meaningful discussion on matters related to the City's development.

The Council is responsible for approving municipal by-laws, the IDP, the budget and tariffs. Further, the Council, through its various committees, monitors and scrutinises delivery and outputs as carried out by the executive branch. In relation to public participation, the Council is responsible for facilitating stakeholder and community participation in the affairs of the Municipality as described by the Municipal Structures Act.

### b) Oversight Committees of Council

As part of the core of this Council's model and its commitment to the separation of powers, sixteen Section 79 oversight and/or standing committees have been established and adopted by the Council. The Section 79 oversight committees are chaired by councillors who are designated full-time councillors and these chairpersons are elected by the Council.

The following are the Section 79 oversight committees:

- Services Infrastructure;
- Transport;
- Housing and Human Settlement;
- Health and Social Development;
- Sport and Recreation;
- Community Safety;
- Integrated Development Planning;
- Agriculture and Environmental Management;
- Economic Development and Spatial Planning;
- Corporate and Shared Services; and
- Finance.

The responsibilities of the above mentioned committees are as follows:

- Scrutinising reports referred to them by the Council emanating from the Executive Mayor and/or Mayoral Committee and advising the Council accordingly;
- Overseeing the performance of the executive branch and departments on behalf of the Council; and
- Providing an advisory legislative role.

The following councillors are Chairpersons of these Committees in the City of Tshwane.

**Table 3.1: Chairpersons of committees**

Name	Committee
Ali Makhafula	Community Safety
Peter Sutton	Finance
Thabisile Vilakazi	Sport and Recreation
Abel Nkwana	Economic Development and Spatial Planning
Dikeledi Selowa	Services Infrastructure
Wildri Peach	Agriculture and Environmental Management
Zweli Khumalo	Corporate and Shared Services
Elmarie Linde	Transport
Nkele Molapo	Housing and Human Settlement
Rita Aucamp (Alderwoman)	Health and Social Development
Prof Clive Napier	Integrated Development Planning

### c) Standing Committees

Standing Committees are permanent committees established to deal with Council-related matters. They are delegated some decision-making powers, and are required

to submit reports to the Council. Councillors chair all standing committees, except the Audit Performance Committee, which is chaired by an independent person in line with the prescriptions of the Municipal Finance Management Act, (Act 56 of 2003) (MFMA).

The Standing Committees and their chairpersons are as follows:

**Table 3.2: Chairpersons of standing committees of the Council**

Chairperson	Committee
Awie Erasmus	Municipal Public Accounts
Hannes Coetzee	Civilian Oversight
Kate Prinsloo (Alderwoman)	Petitions
Piet Uys	Rules and Ethics
Karen Meyer (Alderwoman)	Local Geographical Names

## The Executive

### Executive Mayor and Mayoral Committee

The Executive Mayor has an overarching strategic and political responsibility as the centre of the system of governance. The executive powers are vested in him by the Council to manage the daily affairs of the City. The Executive Mayor, Councillor Solly Msimanga, assisted by the Mayoral Committee, leads the executive branch of the City. Each Member of the Mayoral Committee is responsible for a particular portfolio, as listed below:

**Table 3.3: Members of the Mayoral Committee**

Member of Mayoral Committee	Portfolio
Mike Mkhari	Agriculture and Environmental Management
Randall Williams	Economic Development and Spatial Planning
Cilliers Brink	Corporate and Shared Services
Anniruth Kisoonduth	Safety and Security
Mare-Lise Fourie	Finance
Sakkie du Plooy	Health and Social Development
Mandla Nkomo	Housing and Human Settlements
Darryl Moss	Infrastructure
Ntsiki Mokhotho	Sport, Recreation, Arts and Culture
Sheila Lynn Senkubuge	Roads and Transport

### 3.3 Administrative arrangements

Subsequent to the local government elections held on 3 August 2016, the new political dispensation reviewed the institutional arrangements within the City. The purpose to restructure the organisation to enable it to respond and deliver the priorities of local government. The following were the framers on which the institutional review was based:

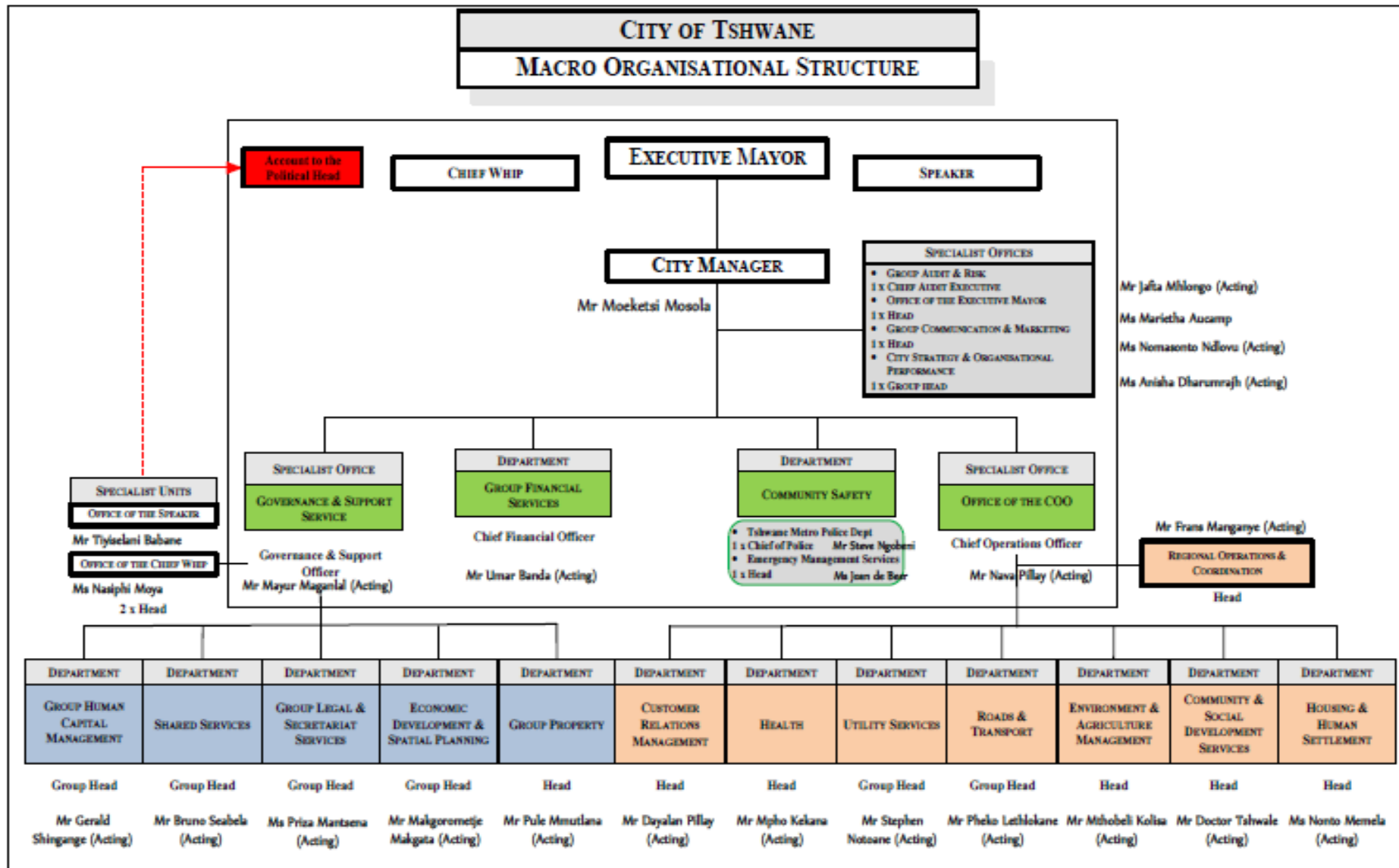
- To ensure that the organisation/administration is stable during the transitional period while ensuring that there are as little disruptions as possible and that all services continue to be rendered.
- To revitalise the institution inclusive of its people, systems and structures in order to better respond to the needs of service delivery recipients.
- To ensure that services are delivered in a more efficient, effective and economic way.

The Council at its meeting held on 24 November 2016, approved the new macro structure of the City of Tshwane.

The City Manager of the City of Tshwane is Mr Moeketsi Mosola, who is the Accounting Officer as defined by the Municipal Structures Act. The responsibilities of the City Manager include managing the financial affairs and service delivery in the Municipality. The City Manager and his deputies constitute top management, which is comprised as follows:

The diagram below shows the City's macro organisational structure.

Figure 3.8: City of Tshwane macro organisational structure



## The Shareholder Unit

The Shareholder Unit (SHU) is tasked with reviewing, monitoring and overseeing the affairs, practices, activities, behaviour and conduct of the municipal entities (MEs) to satisfy the City of Tshwane that the MEs' affairs and businesses are being conducted in the manner expected and in accordance with the commercial, legislative and other prescribed or agreed norms. It is temporarily headed by Shaakira Karolia.

## Municipal entities

Municipal entities are separate legal entities, each headed by a board of directors and utilised by a municipality to deliver services to its community in line with the developmental objectives of the municipality. The City is serviced by three municipal entities which must perform according to service delivery agreements and performance objectives set by the Municipality. The following table lists the entities servicing the City of Tshwane.

The City is currently in a process to assess and review the entities model with regard to its mandate and functionality as well as the role which the Shareholder Unit to ensure the functionality of the entities.

**Table 3.5: Municipal entities of the City of Tshwane**

CEO	Entity
Vacant	Housing Company Tshwane (HCT)
Bongiwe Zwedala (Acting)	Sandspruit Works Association (SWA)
Solly Mokgaladi	Tshwane Economic Development Agency (TEDA)

The framework for municipal entities is currently under review and a report in this regard is being finalised. Details on how the City will approach the functioning of entities will be dealt with in the final IDP document which should be presented to Council at the end of May 2017.

## 3.4 Regional services

The City's regional services model and regional structures are integral parts of its rationale to bring services closer to the people and to transform regions into superb places to live, work and stay; while capitalising on each region's uniqueness to create strong, resilient and prosperous areas.

The institutional arrangements in the Regional Coordination and Transformation Office are as follows:

**Table 3.6: Institutional Arrangements for regional service delivery management**

Name	Function
Frans Manganye (Acting)	Head: Regional Operations and Coordination
Phillemon Mathane (Acting)	Regional Executive Director: Region 1
Godfrey Mnguni	Regional Executive Director: Region 2
Kgomotso Mohlala	Regional Executive Director: Region 3
Masehe Tebello (Acting)	Regional Executive Director: Region 4
Nomsa Mabasa	Regional Executive Director: Region 5
Sello Chipu	Regional Executive Director: Region 6
Persia Makgopa (Acting)	Regional Executive Director: Region 7

The regionalisation of service delivery refers to the decentralisation of certain operational and maintenance functions to regional offices led by the respective REDs and the function report to the Chief Operations Officer. While functions such as strategic planning and the implementation of capital projects will remain the responsibility of City departments, daily functions such as maintenance and repairs, information desks, among others will be delivered directly in the different regions through performing the following functions:

- Health Department
- Utility Services Department
- Roads and Transport Department
- Environmental and Agricultural Management Department
- Community and Social Development Services Department
- Housing and Human Settlements Department
- Regional Operations and Coordination
- Customer Relations Management

## Conclusion

The process of the rollout of the new macro structure is currently being implemented and supported by the rollout of the micro structure which support it. The latter will be concluded by the beginning of the 2017/18 financial year. With this, other arrangements are under review, including a review of the municipal entities as well as winding down of some; the confirmation of the terms of reference for Section 79 Portfolio Committees, among others. Also linked to the institutional arrangements is the election of ward committees which will be concluded soon and will assist in fostering participation and accountability.



## **4. INTER-GOVERNMENTAL ALIGNMENT**

### **4.1 Introduction**

This chapter deals with continuous strengthening of intergovernmental relations (IGR). It highlights some of the key provincial projects to be implemented in the city. The City's responses to the comments provided by the MEC for Provincial Government on the 2016/17 IDP are also provided here.

### **4.2 Background to intergovernmental relations**

Intergovernmental relations are guided by the Intergovernmental Relations Framework Act, 2005 (Act 13 of 2005), which aims to provide, within the principle of cooperative government set out in Chapter 3 of the Constitution, a framework for national, provincial and local government, as well as all organs of state, to facilitate coordination in the implementation of policy and legislation, including the following:

- Coherent government
- Effective provision of services
- Monitoring of the implementation of policy and legislation
- Realisation of national priorities

The impact of IGR practice on service delivery arises from the interplay between the formal design elements of the system described above and operational factors that impinge on the implementation of that system (e.g. capacity issues, the budget, the political context, community dynamics, etc). These operational risks are managed by the vertical and horizontal dimensions of IGR. This includes the coordination and supervision duties between different spheres of government, e.g. in relation to concurrency in powers and functions across the three spheres, or the oversight and integration roles within particular spheres of government, e.g. national cluster committees established by the President in 1999 to enhance cross-sectoral coordination.

Ultimately, the effectiveness of the IGR system may be gauged by the extent to which it adds value to effective service delivery, development and good governance across the three spheres of government. This is recognised in the preamble to the Intergovernmental Relations Framework Act, which acknowledges that challenges of poverty, inequality and marginalisation of vulnerable groups and communities are best addressed through “concerted effort by government in all spheres to work together and to integrate as far as possible their actions in the provision of services, the alleviation of poverty and the development of our people and our country”.

In the light of the above, intergovernmental planning should in practice do the following:

- Facilitate the flow of information between and within sectors in all three spheres of government
- Improve the weak IGR between local government and the other two spheres of government
- Achieve greater clarity on the obligations of different spheres of government where there are concurrent responsibilities
- Give greater attention to the lack of capacity in all three spheres of government

According to sections 24(1) to 24(4) of the Municipal Systems Act (MSA) of 2000 (Act 32 of 2000), the planning of local government must at all times be integrated and aligned with the planning and strategies of the national and the provincial government. In addition, any organ of state which initiates legislation at national or provincial level that affects planning at local government level must first consult with organised local government before the legislation can be duly effected.

### 4.3 Comments received from the MEC for the Department of Cooperative Governance and Traditional Affairs on the City of Tshwane's 2016/17 reviewed Integrated Development Plan

The Municipal Systems Act compels the MEC responsible for Local Government to evaluate the municipal IDPs on an annual basis, and provide comments thereon to enhance intergovernmental relations and alignment in order to improve service delivery. MEC SP Mashatile, commended the City on a number of issues contained in the reviewed IDP, and also raised certain matters that require the City's attention. The comments and the City's responses are captured in the table below.

**Table 4.1 Response to MEC comments**

Issue Raised by the MEC	City of Tshwane's Response/ Action
<b>SPATIAL DEVELOPMENT FRAMEWORK</b>	
SDF of the City to reflect the Provincial SDF and population growth that happens through natural thresholds and urbanisation	<p>The City's spatial team has worked closely with the GSDF team during the development of the Provincial SDF in order to ensure that the spatial planning is aligned with Gauteng's overall spatial objectives. The refinements made to the GSDF 2030 will be taken into account once the MSDF is reviewed.</p> <p>Demographic and migratory trends are a key informant of how best to inform growth management in the City. It is the intention in the current MSDF that population patterns are influenced through the provision of infrastructure</p>

Issue Raised by the MEC	City of Tshwane's Response/ Action
	and amenities such that they sustainable economies throughout the city. This cannot be realized only through the MSDF, but through the response of different sector departments within the city to the directives of the SDF.
<b>GOOD GOVERNANCE</b>	
Public participation strategies to include people with special needs and diversification of participation platforms	<p>Special needs, sign language and interpreters will be used in future in all regional public meetings. Key documents will be translated in 4 official languages, Sepedi, English, IsiZulu, and Afrikaans. (as per regional demographics)</p> <p>Creation of public awareness platforms such as regional workshops on IDP processes, IDP civic education programs supported by:</p> <ul style="list-style-type: none"> <li>○ Development of a leaflet /brochure on IDP information/processes and it be delivered in all post boxes and customer care centres.</li> <li>○ Involve the SA Post Office on the issue of distribution of information.</li> <li>○ Roadshows/workshops in all regions</li> <li>○ Radio Interviews on the IDP processes.</li> </ul>
Targeted communication channels with the youth on the development opportunities that exist in the City	<p>The mandate of the Youth Development Unit (YDU) is to coordinate; lobby; advocate, monitor, report and mainstreaming of youth development. Institutionalization of youth development in the City of Tshwane demonstrated youth play central role in a developmental local government and future outlook of the City.</p> <p>The relationship with youth in business and civil society is solid whereby a database of chambers, organisations and individuals is continuously updated to ensure effective and efficient stakeholder engagement and involvement. These organisations help to drive the youth agenda by liaising with various city departments and municipal-owned entities in the development and empowerment of young people.</p> <p>As part of contribution to job creation and opportunities the City of Tshwane entered into the Service Level Agreement with the Gauteng Department of Infrastructure Development in August 2014 until 31 March 2017. Five hundred</p>

Issue Raised by the MEC	City of Tshwane's Response/ Action
	<p>(500) youths are placed within the city departments as part of the National Youth Service (NYS) Programme. The main objective of the NYS Programme is to expose youths into work environment, community service and on the job training thus enhancing social inclusion, social capital and employability.</p> <p>In addition to the above, the Youth Development Unit (YDU) facilitated the signing another two MoU with the National Department of Rural Development &amp; Land Reform and the South African Youth Council (SAYC) and the duration of the MoU's is 12 Months to end on April 2017. The main objectives of the two MoU's amongst other is to; improve youths employability and skills development to undermine the triple challenges of unemployment, poverty and inequality as well as skills shortage amongst young people. To date, the municipality has hosted the 54 supervision of construction learners and 40 Construction Site Operators respectively hosted by the department Housing and Human Settlement Department.</p> <p>On issues of career and education programme the YDU hosted numerous career expos with civil society organisations and state organs targeting schools in the peripheral areas of City of Tshwane. The YDU hosted the career expos in partnerships with NZALO and the Gauteng Department of Education (South District) in past three-years from 2014-2016. The purpose of the career expo amongst other is to; create awareness on the career opportunities offered by various institutions of higher learning, create awareness to learners on the job opportunities available on the job market, provide learners with the know how skills to conduct research to find out solutions to their study challenges they are faced with currently.</p>
The city to compile a disability register to allow for targeted development to accommodate their needs	The City is in the process to consolidate its stakeholder database of which the disabled will form a part to ensure their needs are covered in the various planning processes.
According to the Gauteng City -Region's (GCRO) 2013 Quality of Life Survey, 95% of respondents stated that they had not heard of Integrated	<ul style="list-style-type: none"> <li>Ward Councillors and Ward Committees have been workshopped on IDP processes but we currently don't have Ward Committees in the</li> </ul>

Issue Raised by the MEC	City of Tshwane's Response/ Action
<p>Development Plans. Of the 5% that indicated their awareness of IDPs, more than half of them had still not participated in IDP processes despite this knowledge. The lack of knowledge of IDPs leads to poor participation in IDP processes, which implies that communities are not active in shaping development in their communities. In strengthening public participation in the IDP process, the municipality in conjunction with COGTA, through its Public Participation Unit, is encouraged to focus on the primary problem, which is the lack of awareness of IDPs.</p> <p>It is envisioned that the more people and communities are aware of IDPs, they would be in a better position to meaningfully participate in IDP processes.</p>	<p>City.</p> <ul style="list-style-type: none"> <li>• Creation of public awareness platforms such as: The regional workshops on IDP processes, IDP civic education programs <ul style="list-style-type: none"> <li>○ Develop a leaflet /brochure on IDP information/processes and it be delivered in all post boxes and customer care centres.</li> <li>○ Involve the SA Post Office on the issue of distribution of information.</li> <li>○ Roadshows/workshops in all regions</li> <li>○ Radio Interviews on the IDP processes.</li> </ul> </li> </ul>
<p>In 2016, according to the GCRO survey, it is notable how public participation has significantly dropped across the province</p>	<ul style="list-style-type: none"> <li>• It has been an observation that Gauteng residents have been responding negatively towards government activities lately but the City will encourage maximum participation.</li> <li>• GCR must develop common norms and standards on dealing with IDP public participation meetings and processes through COGTA</li> </ul>
<p>Communication methods utilized by the municipality in public participation meetings should accommodate people with special needs, for instance, by using sign language</p>	<ul style="list-style-type: none"> <li>• Special needs, sign language and interpreters will be used in future in all regional public meetings</li> <li>• Leaflets/documents will be translated in 4 official languages, Sepedi, English, IsiZulu, and Afrikaans. (as per regional demographics)</li> </ul>
<p>The Municipality needs to formulate and adopt target community participation strategies to facilitate the involvement of marginalized groups in community decision making processes. The Municipality and Council should ensure that women are equitably represented on community structures such as ward committees and public meetings</p>	<ul style="list-style-type: none"> <li>• Marginalized groups in terms of youth, women and people living with disability have always been invited in all public participation meetings as they are part of the City's stakeholder database, as well as in ward committees as per the by-law on ward committees</li> </ul>
<b>INFRASTRUCTURE AND SERVICE DELIVERY</b>	
<p>Sector plans of departments to be updated in line with legislated timelines</p>	<p>The Municipality has introduced a project priority system (Caps) to, amongst others, align projects within the city between the different functions according to the development priority areas as identified in the Municipal Spatial Development Plan.</p>

Issue Raised by the MEC	City of Tshwane's Response/ Action
	<p>The Water and Sanitation master plan also supports the city's development objectives which should feed into the Provincial Integrated Infrastructure Master Plan.</p> <p>State of Service Delivery: Although water and sanitation infrastructure replacement priorities had been determined, lack of sufficient resources, mainly financial, is preventing the implementation. Emergency repairs are done to maintain the existing infrastructure to keep it operational.</p> <p>The Energy and Electricity Department developed a 20 years Electricity Master Plan which provides the Development of new-sub stations across the seven regions to cater for the City's growth and to ensure security of electricity supply.</p> <p>To manage the risk of any of the in-feed station outages (Kwagga or Njala), The City is busy developing Wildebees infeed station schedule for commissioning in 2021 which is in line with the City's IDP and BEPP and this station is very critical.</p> <p>The City is also developing and strengthening its 132Kv power lines across all seven regions to ensure ability to support different sub-stations in case of area outages and to ensure quality of electricity supply as determined by NERSA.</p>
Alignment of BEPP to infrastructure sector plans to be ensured	<p>The point raised as well as the comment regarding the BEPP/IDP alignment, the review of the IDP 2017/2018 will take its position from the CIF 2017/2018 as a main source document in terms programme identification and implementation. In its nature, the BEPP advocates for spatial targeted capital investment based on the city's spatial vision, the MSDF. Specific sector programmes at all spheres of government pertaining to engineering infrastructure, human settlements, social services should be prioritized based on completing programmes under implementation, investing in economic infrastructure, addressing service delivery backlogs and leveraging on development partnerships.</p> <p>The CIF, will be the Growth Management determinant as it is the financial sustainability of the municipality that determines expenditure and has a</p>

Issue Raised by the MEC	City of Tshwane's Response/ Action
	direct impact on urban morphology as well as the availability of infrastructure services. In essence the city's economic environment, provision of bulk infrastructure and maintenance and the ability to generate revenue sources is an area that requires emphasis in the 2017/2018 IDP
Poor repairs and maintenance by municipalities. Need to adhere to at least 8% of the value of Property, Plant and Equipment	Repairs and maintenance as a percentage of property plant and equipment currently equates to 4%. The municipality is in the process of putting in place processes to ensure that infrastructure maintenance is sufficiently funded in line with the national norm of 8%. The development of an asset maintenance plan which will guide planning/budgeting for repairs and maintenance is a process the city is embarking on in order to ensure that the entire city's assets are identified, accounted for and maintained.
Water losses to be reduced. Reporting on these need to be linked to finances- how much does it cost the City	<p>Unaccounted for Water losses: The current drought and water shortage is being addressed through water restrictions and water conservation measures to reduce the water demand. Apart from restrictions, the municipality has identified water loss management measures such as pressure reduction and flow controls to reduce the physical losses in the system. Communication and education initiatives are intensified to improve awareness of the need to save water. Water re use is encouraged and the municipality is investigating options to expand the purification of local water resources.</p> <p>The monetary value of the non-revenue forms part of the Auditor General's disclosure requirement for the Annual Financial Statements. The monetary value of technical and non-technical water losses is disclosed separately in the AFS.</p>

## Gauteng Provincial projects

The MEC for Finance in the Provincial Legislature, presented the provincial MTEF recently and the information on projects to be implemented in the city is reflected in the table below:

**Table 4.2 Gauteng Provincial Projects to be implemented in the City of Tshwane in the MTREF**

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
DSD	1	Hammanskraal Social Integrated facility	Construction of Early Childhood, Community Facility for Older Persons, and Regional Offices	Construction	Northern	Multi-Purpose Centre	16/02/2016	31/10/2017
DSD	2	Winterveld Social Integrated facility	Construction of Early Childhood, Community Facility for Older Persons, and Regional Offices	Construction	Northern	Multi-Purpose Centre	13/02/2016	31/11/2017
DSD	3	Mabopane Social Integrated facility	Construction of Early Childhood, Community Facility for Older Persons, and Regional Offices	Construction	Northern	Multi-Purpose Centre	13/02/2016	31/11/2017
GDE	178	Itireleng Primary School	Rehabilitation of a Primary School	Design	Northern	Building Maintenance	20/04/2016	30/03/2019
GDE	182	Kekana Primary School	Rehabilitation of a Primary School	Feasibility	Northern	Building Maintenance	01/04/2017	30/03/2019
GDE	188	Kondelelani Primary School	Rehabilitation of a Primary School	Tender	Northern	Building Maintenance	20/11/2015	30/09/2018
GDE	192	Laerskool Generaal Nicolaas Smit	Rehabilitation of a Primary School	Final Account	Northern	Building Maintenance	17/03/2015	15/03/2018
GDE	193	Laerskool Kameelfontein	Rehabilitation of a Primary School	Design	Northern	Building Maintenance	20/04/2015	30/03/2019
GDE	194	Laerskool Louis Leipoldt	Rehabilitation of a Primary School	Design	Northern	Building Maintenance	20/04/2015	30/03/2019
GDE	207	Lesedi Primary School	Rehabilitation of a Primary School	Tender	Northern	Building Maintenance	01/05/2018	30/09/2019
GDE	210	Lethabong Secondary School	Rehabilitation of a Secondary School	Design	Northern	Building Maintenance	20/04/2015	31/03/2019
GDE	214	Lyttleton Manor High	Rehabilitation of a Secondary School	Tender	Northern	Building Maintenance	20/11/2015	30/09/2018
GDE	215	Lyttleton Primary	Rehabilitation of a Primary School	Design	Northern	Building Maintenance	20/04/2015	31/03/2019
GDE	217	Makgake Primary School	Rehabilitation of a Primary School	Construction	Northern	Building Maintenance	10/09/2016	15/07/2018
GDE	218	Makhosini Combined Secondary School	Rehabilitation of a Secondary School	Feasibility	Northern	Building Maintenance	01/04/2017	30/03/2019
GDE	220	Mapenane Secondary	Rehabilitation of a Secondary School	Design	Northern	Building Maintenance	20/04/2015	31/03/2019



Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
GDE	221	Marokolong Primary	Rehabilitation of a Primary School	Feasibility	Northern	Building Maintenance	01/05/2018	30/09/2019
GDE	226	Mmabana Primary School	Rehabilitation of a Primary School	Construction	Northern	Building Maintenance	31/10/2015	28/02/2018
GDE	227	Modiselle Primary School	Rehabilitation of a Primary School	Practical Completion	Northern	Building Maintenance	20/02/2015	30/04/2017
GDE	229	Molefe-Mooke Primary	Rehabilitation of a Primary School	Construction	Northern	Building Maintenance	06/09/2016	15/09/2017
GDE	231	Motheo-Foundation Primary School	Rehabilitation of a Primary School	Feasibility	Northern	Building Maintenance	01/05/2018	30/09/2019
GDE	232	Mpumelelo Secondary School	Rehabilitation of a Secondary School	Feasibility	Northern	Building Maintenance	01/05/2018	28/02/2020
GDE	238	Omar Ebrahim Primary School	Rehabilitation of a Primary School	Feasibility	Northern	Building Maintenance	01/05/2018	28/02/2020
GDE	245	Prinshof LSEN School	Rehabilitation of a Special School	Construction	Northern	Building Maintenance	24/11/2014	10/07/2018
GDE	248	Ramabele Primary School	Rehabilitation of a Secondary School	Construction	Northern	Building Maintenance	24/08/2015	15/04/2017
GDE	252	Refithlile Primary School	Rehabilitation of a Primary School	Design	Northern	Building Maintenance	20/04/2015	31/03/2019
GDE	253	Rodney Mokoena Preparatory School	Rehabilitation of a Primary School	Design	Northern	Building Maintenance	20/04/2015	31/03/2019
GDE	256	Ruabohlale Junior Secondary School	Rehabilitation of a Primary School	Feasibility	Northern	Building Maintenance	01/05/2018	28/02/2020
GDE	258	Sekampaneng Primary School	Rehabilitation of a Primary School	Tender	Northern	Building Maintenance	20/11/2015	30/03/2019
GDE	259	Selelo Primary School	Rehabilitation of a Primary School	Feasibility	Northern	Building Maintenance	01/04/2017	30/03/2019
GDE	264	Sinqobile Primary School	Rehabilitation of a Primary School	Feasibility	Northern	Building Maintenance	01/05/2018	28/02/2020
GDE	265	Soshanguve South Secondary	Rehabilitation of a Secondary School	Design	Northern	Building Maintenance	20/04/2015	06/05/2018
GDE	274	Tlotlompho Primary School	Rehabilitation of a Primary School	Feasibility	Northern	Building Maintenance	01/05/2018	28/02/2020
GDE	275	Transoranje LSEN (Completion contract)	Rehabilitation of a Special School	Design	Northern	Building Maintenance	20/04/2015	31/03/2019
GDE	278	Tsako Thaba Secondary School	Rehabilitation of a Secondary School	Design	Northern	Building Maintenance	20/04/2015	15/12/2018

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
GDE	285	Vukosi Primary School	Rehabilitation of a Primary School	Feasibility	Northern	Building Maintenance	01/05/2017	31/10/2019
DHS	184	Park City Mega Flisp	Construction of Top Structures	Tender	Northern	Top Structures	01/10/2017	01/09/2021
DHS	185	Tswaing/Soutpan Mega Housing development (FLISP)	Construction of Top Structures	Tender	Northern	Top Structures	01/10/2017	01/09/2021
DHS	186	Cullinan Ext 2 Mega Housing Development (FLISP)	Construction of Top Structures	Tender	Northern	Top Structures	01/10/2017	01/09/2021
DHS	187	Boekenhoutskloof	Planning and Installation of Services	Design	Northern	Planning and Services	26/08/2016	30/08/2020
DHS	188	Boikhutsong/ Orange Farm (Planning work)	Planning and Installation of Services	Pre-Feasibility	Northern	Planning and Services	26/08/2016	30/08/2020
DHS	189	Danville Infill Site (Mega - Tshwane Central	Planning and Installation of Services	Design	Northern	Planning and Services	26/08/2016	30/08/2017
DHS	190	New Eersterust (Nantes) Ntirhisano project (Planning)	Planning and Installation of Services	Design	Northern	Planning and Services	26/08/2016	30/08/2020
DHS	191	Lady Selborne Phase 3 - 8 (Mega - Tshwane West Capital)	Planning and Installation of Services	Design	Northern	Planning and Services	26/08/2016	30/08/2017
DHS	192	Louwsbaken 476 JR/Refilwe Ext.8	Planning and Installation of Services	Design	Northern	Planning and Services	01/04/2016	30/11/2018
DHS	193	Kameeldrift (Plot174 of Prtn 2)	Planning and Installation of Services	Design	Northern	Planning and Services	01/04/2013	01/09/2020
DHS	194	Orchards 59	Planning and Installation of Services	Pre-Feasibility	Northern	Planning and Services	01/04/2016	30/11/2018
DHS	195	Orchards 60	Planning and Installation of Services	Pre-Feasibility	Northern	Planning and Services	01/04/2016	30/11/2018
DHS	196	Refilwe Ext 10/ Boekenhoutkloof	Planning and Installation of Services	Design	Northern	Planning and Services	01/04/2013	01/09/2020

Department	Project No.	Project name	Project Description	Project Status	Develop ment Corridor	Type of infrastructure	Date: Start	Date: Finish
DHS	197	Refilwe Ext 7/Doornkraal	Planning and Installation of Services	Design	Northern	Planning and Services	01/04/2013	01/09/2020
DHS	198	Soshanguve Ext KK	Planning and Installation of Services	Tender	Northern	Planning and Services	15/02/2016	30/04/2020
DHS	199	Soshanguve Precinct Development/	Planning and Installation of Services	Design	Northern	Planning and Services	08/01/2016	28/02/2018
DHS	200	Soutpan (Mega - Tshwane North Capital)	Planning and Installation of Services	Design	Northern	Planning and Services	01/04/2013	01/09/2018
DHS	201	Accruals (2016/2017 FY)	Construction of Top Structures	Practical Completion	Northern	Top Structures	01/04/2013	01/09/2018
DHS	202	Steve Bikoville Phase 2	Construction of Top Structures	Construction	Northern	Top Structures	01/04/2013	01/09/2018
DHS	203	Soshanguve Ext 19 Phase 2	Construction of Top Structures	Tender	Northern	Top Structures	01/04/2013	01/09/2018
DHS	204	Hammanskraal 4,10(Ext 3 Sekampaneng)	Planning and Installation of Services	Tender	Northern	Planning and Services	01/04/2017	31/03/2018
DHS	205	Nellmapius/Willows	Construction of Top Structures	Tender	Northern	Top Structures	01/04/2017	31/03/2020
DHS	206	Heatherley East (Nellmapius Ext 22)( Mega - Tshwane East)	Construction of Top Structures	Construction	Northern	Top Structures	01/06/2014	30/06/2020
DHS	207	Heatherley East (Nellmapius Ext 22)(Infrastructure Services) (Mega - Tshwane East)(Road, Storm and Electricity Reticulation)	Electricity Supply	Construction	Northern	Electricity Supply	01/06/2014	30/06/2020
DHS	208	Heatherley East (Nellmapius Ext 22)(Military Veterans)	Construction of Top Structures	Construction	Northern	Top Structures	01/06/2014	30/06/2017

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
DHS	209	Lady Selbourne Phase 2 (Mega - Tshwane West Capital)	Construction of Top Structures	tender	Northern	Top Structures	01/04/2017	31/03/2020
DHS	210	Olievenhoutbosch Ext 27	Construction of Top Structures	Construction	Northern	Top Structures	01/02/2013	31/03/2019
DHS	211	Olievenhoutbosch Ext 36	Construction of Top Structures	Tender	Northern	Top Structures	01/04/2017	31/03/2020
DHS	212	Soshanguve TT	Construction of Top Structures	Design	Northern	Top Structures	01/11/2016	31/03/2019
DHS	213	Fort west Ext. 4 & 5 (COT)	Construction of Top Structures	Construction	Northern	Top Structures	21/05/2014	30/07/2022
DHS	214	New Eersterust Ext.2 - 8	Construction of Top Structures	Construction	Northern	Top Structures	01/04/2017	31/03/2020
DHS	215	Danville Phase 2 (Mega - Tshwane Central)	Construction of Top Structures	Design	Northern	Top Structures	01/05/2017	01/05/2020
DHS	216	Park City Mega	Construction of Top Structures	Tender	Northern	Top Structures	21/05/2014	30/07/2022
DHS	217	Tswaing/Soutpan Mega Housing development	Construction of Top Structures	Tender	Northern	Top Structures	21/05/2014	30/07/2022
DHS	218	Cullinan Ext 2 Mega Housing Development	Construction of Top Structures	Tender	Northern	Top Structures	21/05/2014	30/07/2022
DHS	219	Park City	Construction of Top Structures	Tender	Northern	Top Structures	21/05/2014	30/07/2022
DHS	220	Soutpan - Tswaing	Construction of Top Structures	Tender	Northern	Top Structures	21/05/2014	30/07/2022
DHS	221	Cullinan	Construction of Top Structures	Tender	Northern	Top Structures	21/05/2014	30/07/2022
DHS	222	(Thorntree View) Soshanguve South Ext 7	Construction of Top Structures	Construction	Northern	Top Structures	01/03/2013	31/03/2019
DHS	223	Hammanskraal West Ext 2 (Mega - Tshwane North Development)	Construction of Top Structures	Construction	Northern	Top Structures	21/05/2014	30/07/2022

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
DHS	224	Kudube Unit 9 (COT)	Construction of Top Structures	Construction	Northern	Top Structures	21/05/2014	30/07/2022
DHS	225	Mamelodi Ext 22 (Remedial not reported in previous years)	Construction of Top Structures	Terminated	Northern	Top Structures	21/05/2014	30/07/2022
DHS	226	Mamelodi Erf 29355 (COT)(Mamelodi Ext 5)	Construction of Top Structures	On hold	Northern	Top Structures	21/05/2014	30/07/2022
DHS	227	Mamelodi Ext 10	Construction of Top Structures	Construction	Northern	Top Structures	01/06/2017	31/03/2020
DHS	228	(Steve Biko Phase 2	Construction of Top Structures	Construction	Northern	Top Structures	01/06/2012	31/03/2017
DHS	229	Olievenhoutbosch Ext 60 (COT)	Construction of Top Structures	Construction	Northern	Top Structures	01/04/2017	01/07/2020
DHS	230	Refilwe Manor (COT)	Construction of Top Structures	Construction	Northern	Top Structures	21/05/2014	30/07/2022
DHS	231	Rethabiseng Ext. 5	Construction of Top Structures	Tender	Northern	Top Structures	01/07/2014	01/10/2020
DHS	232	Soshanguve Ext 19 Phase 1	Construction of Top Structures	Construction	Northern	Top Structures	01/03/2016	31/10/2017
DHS	233	Soshanguve Ext 19 Phase 2	Construction of Top Structures	Tender	Northern	Top Structures	Not yet started	Not yet started
DHS	234	Soshanguve Block 1 A & NN (Industrial)	Construction of Top Structures	Construction	Northern	Top Structures	01/04/2016	31/03/2020
DHS	235	Hammanskraal 4,10(Ext 3 Sekampaneng)	Construction of Top Structures	Tender	Northern	Top Structures	21/05/2014	30/07/2022
DHS	236	Soshanguve M Ext 1	Construction of Top Structures	Construction	Northern	Top Structures	01/09/2016	31/03/2020
DHS	237	Soshanguve SS Ext 1	Construction of Top Structures	Construction	Northern	Top Structures	01/04/2016	31/03/2018
DHS	238	Soshanguve BB, FF & GG	Construction of Top Structures	Tender	Northern	Top Structures	01/04/2016	31/03/2017
DHS	239	Soshanguve Ext 4 & 5	Construction of Top Structures	Construction	Northern	Top Structures	01/10/2015	31/03/2020

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
DHS	240	Soshanguve Block X Ext 1	Construction of Top Structures	Construction	Northern	Top Structures	01/07/2015	31/03/2020
DHS	241	Soshanguve Ext 1,2 & 3	Construction of Top Structures	Tender	Northern	Top Structures	21/05/2014	30/07/2022
DHS	242	Soshanguve Ext HH,JJ R & S (INCUBATOR)	Construction of Top Structures	Construction	Northern	Top Structures	01/07/2016	01/02/2017
DHS	243	Soshanguve MM	Construction of Top Structures	Construction	Northern	Top Structures	01/04/2016	31/03/2020
DHS	244	Soshanguve Plot 67	Construction of Top Structures	Construction	Northern	Top Structures	21/05/2014	30/07/2022
DHS	245	Soshanguve School Sites(HH,JJ & R&S)	Construction of Top Structures	Construction	Northern	Top Structures	01/03/2017	31/07/2020
DHS	246	Soshanguve V Ext 1	Construction of Top Structures	Construction	Northern	Top Structures	04/01/2016	31/03/2020
DHS	247	Ramotse Township	Construction of Top Structures	On Hold	Northern	Top Structures	21/05/2014	30/07/2022
DHS	248	Zithobeni 8 & 9 (COT)	Construction of Top Structures	Construction	Northern	Top Structures	21/05/2014	30/07/2022
DHS	249	Chantelle X39 (COT)	Construction of Top Structures	Construction	Northern	Top Structures	01/06/2019	01/06/2021
DHS	250	Erf 708 & 709Sunnyside (COT) (Top-up funding for 10 Units)	Construction of Top Structures	Construction	Northern	Top Structures	01/06/2019	01/06/2020
DHS	251	Tembelihle (GPF)	Construction of Top Structures	Construction	Northern	Top Structures	21/05/2014	30/07/2022
DHS	252	Townlands 473 GPF Social Housing	Construction of Units	Construction	Northern	Top Structures	02/01/2017	01/01/2020
DHS	253	Pretoria North (475)	Construction of Top Structures	Tender	Northern	Top Structures	21/05/2014	30/07/2022
DHS	254	Sunnyside	Construction of Top Structures	Construction	Northern	Top Structures	21/05/2014	30/07/2022

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
DHS	255	Heatherley East (Nellmapius Ext. 22)	Construction of Top Structures	Construction	Northern	Top Structures	01/06/2014	30/06/2020
DHS	256	Sokhulumi Rural development	Construction of Top Structures	Construction	Northern	Top Structures	01/07/2014	30/06/2020
DHS	257	Winterveld 3 Phase 2 (Mega - Tshwane North Development)	Construction of Top Structures	Construction	Northern	Top Structures	21/05/2014	30/07/2022
DHS	258	Slovoville( New)	Construction of Top Structures	Construction	Northern	Top Structures	01/07/2016	31/03/2020
DHS	259	Mamelodi Backyard Rental (COMPLETION)	Construction of Top Structures	On hold	Northern	Top Structures	01/04/2017	01/06/2017
DHS	425	Atteridgeville Backyard Rental	Construction of Units	Final completion	Northern	Top Structures	01/10/2016	31/05/2017
DRT	2	K16 new road from Waitloo to Mamelodi detail design and road reserve proclamation (APP 2016/17)	Road reserve proclamation and Detail Design	Design	Northern	Infrastructure Design	01/08/2016	30/07/2017
DRT	4	K97 (New Road) Phase 2 from N4 southwards to Wonderboom (K14) (Pyramid Freight hub) detail design and road proclamation (APP 2016/17)	Road reserve proclamation and Detail Design	Design	Northern	Infrastructure Design	01/08/2016	30/07/2017
DRT	11	D1814 from (P2-5) K14 to D483 (Rayton) : Testing of Roller compacted concrete & Ultra-Thin Concrete material (HVS)	Implementation of Roller compacted concrete as trial test	Construction	Northern	Roller Compactor	01/04/2014	30/03/2018

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
DRT	14	K54 expressway Phase 1: Amendment of preliminary design from PwV17 to N4 to R21 and detail design and land acquisition (APP 2018/19)	Road reserve proclamation and Detail Design	Design	Northern	Infrastructure Design	01/042016	30/06/2017
DRT	26	N14: Rehabilitation of Road P158/2 (N14) and P39/1 between P158/2 (km 20.7) to Hendrik Potgieter Intersection	Light Rehabilitation of Existing Road	Retention	Northern	Heavy Rehabilitation	04/052015	03/12/2016
DRT	51	Bronkhorstspuit Region Regravelling Of Gravel Roads	Road-Gravel	Tender stage	Northern	Betterment And Gravelling	01/082017	28/02/2017
DRT	52	Tshwane Region Regravelling Of Gravel Roads	Road-Gravel	Tender stage	Northern	Betterment And Gravelling	01/082017	28/02/2017
SACR	2	Atteridgeville Community Library	Construction of a new Community Library	Tender	Northern	Library and Archives Centres	15/112015	30/03/2018
SACR	3	Akasia Community Library	Construction of a new Community Library	Tender	Northern	Library and Archives Centres	15/112015	30/03/2018
SACR	10	Sokhulumi Community Library	Construction of a new Community Library	Feasibility	Northern	Library and Archives Centres	01/042017	31/03/2020
SACR	19	Women's Living Heritage Monument	Construction of a Heritage Monument	Construction	Northern	Arts and Culture Centres	01/06/2014	30/03/2018
DARD	3	Roodeplaat Nature Reserve - New pipe for the whole reserve	Construction of new water pipe line	Retention	Northern	Water	02/02/2016	30/11/2017
DARD	7	Kareekloof Camp Site	Planned, statutory and preventative maintenance	Project Initiation	Northern	Agriculture Properties & Facilities	01/04/2015	31/03/2016
DARD	8	Leeuwfontein Nature Reserve	Planned, statutory and preventative maintenance	Project Initiation	Northern	Agriculture Properties & Facilities	01/04/2017	31/03/2018
DARD	10	Roodeplaat Nature Reserve	Planned, statutory and preventative maintenance	Project Initiation	Northern	Agriculture Properties & Facilities	01/04/2017	31/03/2018



Department	Project No.	Project name	Project Description	Project Status	Develop ment Corridor	Type of infrastructure	Date: Start	Date: Finish
DARD	11	Roodeplaat Youth Centre	Planned, statutory and preventative maintenance	Project Initiation	Northern	Agriculture Properties & Facilities	01/04/2017	31/03/2018
DARD	14	Themba Satellite Office	Planned, statutory and preventative maintenance	Project Initiation	Northern	Agriculture Properties & Facilities	01/04/2017	31/03/2018
DARD	15	Vredehuis Regional office	Planned, statutory and preventative maintenance	Project Initiation	Northern	Agriculture Properties & Facilities	01/04/2017	31/03/2018
DID	15	Roodeplaat Dam	Supply install, rewire, connect and commission distribution board	Construction	Northern	Office Building	01/042017	31/032018
DOH	2	Atteridgeville CHC - New	Construction of new community health centre	Feasibility	Northern	PHC - Community Health Centre	30/11/2018	31/08/2021
DOH	5	Boikhutsong CDC- Conversion of CHC into new Boikhutsong CDC	Conversion of CHC into new Boikhutsong CDC	Awarded	Northern	PHC - Community Day Centre	01/04/2017	17/04/2020
DOH	8	Bronkhorstspuit FPS Mortuary - Construction of new Bronkhorstspuit FPS mortuary	Construction of new Bronkhorstspuit FPS mortuary	Design	Northern	Mortuary	06/09/2020	06/01/2022
DOH	9	Bronkhorstspuit Hospital - Medical Equipment	Procurement of medical equipment	Identified	Northern	Health Technology	01/04/2017	31/03/2018
DOH	15	Dewagendsdrift New Clinic (NHI)- Construction of new clinic- ID	Construction of new clinic	Construction	Northern	PHC- Clinic	12/08/2016	12/06/2017
DOH	16	Dewagendsdrift EMS Base - New	Construction of new EMS base	Design	Northern	Ambulance/EMS Station	05/08/2018	29/09/2019
DOH	18	Dr George Mukhari - Helipad, New Oncology - Construction	Construction of helipad and oncology section	Design	Northern	Hospital - Central	30/01/2018	30/07/2018
DOH	21	Dr. George Mukhari Hospital - Electro	Electro-mechanical projects	Construction	Northern	Other Specialised	01/04/2016	31/03/2018
DOH	34	Jubilee Hospital - Medical Equipment	Procurement of medical equipment	Identified	Northern	Health Technology	01/04/2017	31/03/2018
DOH	35	Jubilee Hospital - Revitalisation of hospital	Complete revitalisation of hospital	Feasibility	Northern	Hospital - District	25/09/2019	24/09/2024
DOH	37	Kalafong Hospital - Nurses Res	Construction of new community health centre	Tender	Northern	Accommodation	28/02/2017	28/06/2018

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
DOH	38	Kalafong Hospital - Revitalisation- Complete revitalisation of entire Kalafong Hospital	Complete revitalisation of entire Kalafong Hospital	Identified	Northern	Hospital - Academic	20/08/2020	19/08/2025
DOH	39	Kekanastad Clinic Construction of new clinic	Construction of new clinic	Construction	Northern	PHC- Clinic	01/02/2016	05/05/2017
DOH	40	Kgabo CHC Addition and Rehabilitation (NHI) P2 - Additions & Rehabilitation	Additions and rehabilitation of existing community health centre	Design	Northern	PHC - Community Health Centre	01/10/2018	29/11/2019
DOH	50	Masakhane Laundry - Electro	Electro-mechanical projects	Construction	Northern	Other Specialised	01/04/2016	31/03/2018
DOH	53	New Kekana Gardens Clinic- Construction new Clinic-ID	Construction of new clinic	Construction	Northern	PHC- Clinic	15/01/2016	03/04/2017
DOH	54	Odi Hospital - Electro	Electro-mechanical projects	Construction	Northern	Other Specialised	01/04/2016	31/03/2018
DOH	55	Odi Hospital - Medical Equipment	Procurement of medical equipment	Identified	Northern	Health Technology	01/04/2017	31/03/2018
DOH	57	Pretoria West Hospital - Electro	Electro-mechanical projects	Construction	Northern	Other Specialised	01/04/2016	31/03/2018
DOH	58	Pretoria West Hospital - Medical Equipment	Procurement of medical equipment	Identified	Northern	Health Technology	01/04/2017	31/03/2018
DOH	66	SG Lourens Nursing College - Electro	Electro-mechanical projects	Construction	Northern	Other Specialised	01/04/2016	31/03/2018
DOH	70	Steve Biko Academic Hospital - Electro	Electro-mechanical projects	Construction	Northern	Other Specialised	01/04/2016	31/03/2018
DOH	77	Tshwane District Health - Medical Equipment	Procurement of medical equipment	Identified	Northern	Health Technology	01/04/2017	31/03/2018
DOH	78	Tshwane District Hospital - Medical Equipment	Procurement of medical equipment	Identified	Northern	Health Technology	01/04/2017	31/03/2018

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
DOH	79	Tshwane Medico Legal- Electro	Electro-mechanical projects	Construction	Northern	Other Specialised	01/04/2016	31/03/2018
DOH	80	Tshwane Rehab Centre - Electro	Electro-mechanical projects	Construction	Northern	Other Specialised	01/04/2016	31/03/2018
DOH	81	Weskoppies Hospital - Electro	Electro-mechanical projects	Construction	Northern	Other Specialised	01/04/2016	31/03/2018
DOH	89	Ga-Rankuwa Nursing College - Upgrading and Renovations	Upgrading and Renovations to Nursing college	Construction	Northern	Nursing College	25/05/2015	31/05/2017
DOH	92	Lebone College - Upgrade of facility as per Health council specifications	Upgrade of facility as per Health council specifications	Design	Northern	Nursing College	05/03/2018	03/07/2019
DOH	93	Mandisa Shiceka Clinic - Convert to CDC (NHI) P3	Conversion of clinic into CDC	Tender	Northern	PHC - Community Health Centre	30/06/2017	30/06/2019
DOH	95	New Eersterust Clinic Minor extension of recently built clinic	Extension of recently built clinic	Awarded	Northern	PHC- Clinic	15/01/2017	28/06/2018
DOH	97	Park Homes	Magagula Heights Park Homes upgrade	Tender	Northern	Other Specialised	01/04/2015	31/03/2018
DOH	99	Pretoria North Clinic - Additional consulting rooms	Additional consulting rooms	Design	Northern	PHC- Clinic	05/10/2017	19/04/2019
DOH	100	Refilwe Clinic - extension to CHC	extension to CHC	Design	Northern	PHC - Community Health Centre	30/01/2018	30/09/2020
DOH	102	SG Lourens Nursing College - New Training Facility	Construction of new training facility	Design	Northern	Nursing College	20/03/2019	20/03/2023
DOH	103	Tshwane Rehabilitation Centre - Renovations and upgrading of facility	Renovations and upgrading of facility	Design	Northern	Hospital - Specialised Other	31/01/2018	31/01/2022

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
DOH	108	Dark City CHC Additions and Rehabilitation to existing CHC	Additions and Rehabilitation to existing CHC	Feasibility	Northern	PHC - Community Health Centre	02/11/2018	30/09/2020
DOH	109	Dilopye Clinic - Additions & Rehabilitation	Additions and rehabilitation to clinic	Awarded	Northern	PHC- Clinic	15/02/2017	18/06/2018
DOH	115	Phedisong 4 CHC Additions & Rehabilitation (NHI) P2-Additions & Rehabilitation	Addition and rehabilitation to community health centre	Design	Northern	PHC - Community Health Centre	05/10/2017	29/06/2019
DOH	116	Refentse Clinic Additions & Rehabilitation	Additions and rehabilitation to clinic	Design	Northern	PHC- Clinic	02/11/2017	30/03/2020
DOH	120	Weskoppies Hospital Refurbishment of Heritage Buildings	Refurbishment of Heritage Buildings	Design	Northern	Hospital - Specialised Other	16/11/2018	01/06/2021
DOH	127	Bronkhorstspuit Hospital - Maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital District - Building Maintenance	01/04/2017	31/03/2018
DOH	128	Bronkhorstspuit Forensic Mortuary- Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Mortuary - Building Maintenance	01/04/2017	31/03/2018
DOH	135	Cullinan Care Rehab Maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital Specialised Other - Building Maintenance	01/04/2017	31/03/2018
DOH	136	Cullinan EMS - Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Ambulance/EMS Station - Building Maintenance	01/04/2017	31/03/2018
DOH	138	Dr George Mukhari Hospital Maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital Central - Building Maintenance	01/04/2017	31/03/2018
DOH	149	Garankuwa Forensic Mortuary (Maintenance)	Planned, statutory and preventative maintenance	Identified	Northern	Mortuary - Building Maintenance	01/04/2017	31/03/2018

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
DOH	150	Garankuwa Nursing College - Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Nursing College - Building Maintenance	01/04/2017	31/03/2018
DOH	160	Jubilee Hospital Maintenance-Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital District - Building Maintenance	01/04/2017	31/03/2018
DOH	161	Kalafong Hospital Maintenance Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital Central - Building Maintenance	01/04/2017	31/03/2018
DOH	163	Lebone College of Emergency Care Maintenance-Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Nursing College - Building Maintenance	01/04/2017	31/03/2018
DOH	164	Lebone EMS College Maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Ambulance/EMS Station - Building Maintenance	01/04/2017	31/03/2018
DOH	166	Masakhane Cookfreeze Maintenance (GDID)-Planned statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Other Specialised - Building Maintenance	01/04/2017	31/03/2018
DOH	167	Masakhane Laundry-Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Laundry Regional - Building Maintenance	01/04/2017	31/03/2018

Department	Project No.	Project name	Project Description	Project Status	Development Corridor	Type of infrastructure	Date: Start	Date: Finish
DOH	168	MEDUNSA Oral Health Centre Hospital Maintenance (GDID)-Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital Specialised Other - Building Maintenance	01/04/2017	31/03/2018
DOH	169	New Mamelodi Hospital Maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital Provincial - Building Maintenance	01/04/2017	31/03/2018
DOH	171	Odi Hospital Maintenance (GDID)	Planned, statutory and preventative maintenance	Identified	Northern	Hospital District - Building Maintenance	01/04/2017	31/03/2018
DOH	173	Old Mamelodi Hospital Maintenance (GDID)-Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital Provincial - Building Maintenance	01/04/2017	31/03/2018
DOH	175	Pretoria Forensic Mortuary (Maintenance)-Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Mortuary - Building Maintenance	01/04/2017	31/03/2018
DOH	176	Pretoria West Hospital Maintenance (GDID)-Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital District - Building Maintenance	01/04/2017	31/03/2018

Department	Project No.	Project name	Project Description	Project Status	Develop ment Corridor	Type of infrastructure	Date: Start	Date: Finish
DOH	181	S G Lourens Nursing College Maintenance (GDID)- Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Nursing College - Building Maintenance	01/04/2017	31/03/2018
DOH	193	Steve Biko Academic Hospital Maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital Central - Building Maintenance	01/04/2017	31/03/2018
DOH	199	Tshwane District CHCs Maintenance (GDID) - Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	PHC - Community Health Centre - Building Maintenance	01/04/2017	31/03/2018
DOH	200	Tshwane District Clinics Maintenance	Planned, statutory and preventative maintenance	Identified	Northern	PHC - Clinic- Building Maintenance	01/04/2017	31/03/2018
DOH	201	Tshwane District Hospital Maintenance (GDID)-Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital District - Building Maintenance	01/04/2017	31/03/2018
DOH	202	Tshwane District Office (Pharmacies & EMS) Maintenance (GDID)	Planned, statutory and preventative maintenance	Identified	Northern	Other Specialised - Building Maintenance	01/04/2017	31/03/2018
DOH	203	Tshwane Rehabilitation Centre Maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital Specialised Other - Building Maintenance	01/04/2017	31/03/2018
DOH	204	Weskoppies Hospital Maintenance (DID)- Planned, statutory and preventative maintenance	Planned, statutory and preventative maintenance	Identified	Northern	Hospital Psychiatric - Building Maintenance	01/04/2017	31/03/2018

## **Conclusion**

In the Annexed Built Environment Performance Plan (BEPP) 2017/18, a detailed discussion on the strategic intergovernmental project pipeline is given. The City will continue to foster intergovernmental planning and monitoring in all spheres of government. This will also be intensified during the financial year and throughout the 2017/21 Term of Office.



## 5. COMMUNITY PARTICIPATION

### Introduction

One of the City's commitment is to promote public participation and consultation is based on constitutional and legal obligations including the governance model. To bring effect to this, the City has and will continue to promote participatory engagements with the communities in all its processes, including the development of the IDP.

The aim of this chapter is to outline the legislative framework that guides community participation as well as community outreach processes that have been conducted in developing the 2017/18 IDP Review.

#### Legislative Requirements regarding Public Participation Process on the IDP

The development of the Municipal Integrated Development Plan is guided by Chapter 5 of the Municipal Systems Act, 2000 (Act 32 of 2000) (MSA). The Municipal Systems Act is founded on the constitutional principles of participatory democracy and cooperation.

The following are some of the legislative requirements that guide municipal planning, including the IDP.

- **The Constitution of RSA of 1996 {Sec 152 (e)}** states that Local government must encourage the involvement of communities and community organisation in its matters – In this instance the involvement of communities and stakeholders in the general affairs and processes of Council such as the drafting and review of the Integrated Development Plan, functioning of ward committees, dealing with petitions as well as section 79 oversight processes and feedback mechanisms to allow participation is key to the process of involving communities in the City's processes.
- **Municipal Structures Act 117 of 1998: Section 72** states that it is the responsibility of a ward committee member to enhance participatory democracy in local government.
- **White Paper in Local Government (1998)** Emphasises that political leaders remain accountable and should work within their mandates and allow consumers to have input on the way services are being rendered.
- **Section 4 of the Traditional Leadership and Governance Act (Act 41 of 2003)** states that "A traditional council has the responsibility to facilitate the involvement of the traditional community in the development or amendment of the integrated development plan of a municipality in whose area that community lives

Public participation is a critical part of democracy as it affords members of the community and stakeholders an opportunity to inform the Municipality what their developmental needs are. The process also gives community members clear understanding of the process that have been put in place by the municipality.

## **Participatory framework for the 2017/18 IDP review**

On 3 August 2016 new ward councillors were elected for the 2016/21 term of council. Part of the role of a Councillor is to foster community participation (Sec. 16(1)(b)(ii) of the MSA, Act 32 of 2000). This places a responsibility for them to facilitate participatory processes within their wards and one of the ways of doing this is through the IDP processes.

The role of ward Councillors are central to the development within the 107 wards of the City and a process to allow them to identify key development priorities for their respective wards is a critical component in the IDP process. Ward community meetings were held in all wards during November 2016 to January 2017

Beyond the ward community meetings that were facilitated by the ward councillors, there was also a need to strengthen the involvement of other stakeholders at city wide level, these included

- Traditional Leaders;
- Representatives from organised labour;
- Representatives from organised business;
- Representatives from Non-Governmental organisations (NGO's);
- Representatives from Community Based Organisations (CBO's);
- Representatives from unorganised business groupings; and
- Other relevant groups such as the academic and research institutions and embassies.

### **Phase 1- October to December 2016**

#### **Executive Mayor and MMC's engagements with stakeholders**

Between October and November 2016, the Executive Mayor scheduled a series of engagement meetings with various stakeholders to engage them on the pre-tabling of 17/18 IDP review amongst others as per the approved Council process plan. The Executive Mayor also had a public meeting in Olivenhoutbosch, 24-hour Park; where service delivery issues were highlighted by various stakeholders including members of the community. These engagement sessions also provided the Municipality the following:

- Create a platform for the Executive Mayor, and his Executive to engage with stakeholders on decisions and proposals of the executive.
- Provide the Executive with an opportunity to understand and support various stakeholders including their constituency

- Assist to formalize stakeholder organizations that are not yet formalized for the purpose of providing sustainable structures.
- They will instill the culture of “activism” and people-centered governance in the City of Tshwane.
- To afford the stakeholders an opportunity to highlight their service delivery challenges of their respective constituencies that require the intervention of the municipality and other spheres of government

The following table reflect the schedule of the Executive Mayor and MMC’s engagements with Stakeholders:

**Table 5.1: Executive Mayor Schedule of meetings with stakeholders**

Date	Time	Name of Stakeholder
08 Nov 2016	10h00	Marabastad Business Organizations
25 Oct 2016	17h00	Domestic Organizations
26 Nov 2016	17h00	Rate Payers Associations
10 Nov 2016	17h00	Youth Organizations
14 Nov 2016	17h00	Organised Business Associations
15 Nov 2016	17h00	Transport Organizations
17 Nov 2016	17h00	Faith Based Organization

The table below highlights key issues raised during the Mayoral IDP Stakeholder engagement sessions:

**Table 5.2: Summary of issues raised during the stakeholder engagement sessions**

Name of Stakeholder	Issues Raised
<b>Marabastad Business Organizations</b>	<ul style="list-style-type: none"> <li>– Use of Substance Abuse</li> <li>– Overcrowded Informal Traders</li> <li>– High rate of crime</li> <li>– Request for more visibility of Police and law enforcement agencies.</li> <li>– City to assist in improving the conditions of Marabastad.</li> <li>– The City to assist in identifying the suitable building that can be utilized as the Rehabilitation centre for drug addicts.</li> <li>– Conflict amongst leadership of the Informal Traders a concern</li> </ul>
<b>Domestic Workers Association</b>	<ul style="list-style-type: none"> <li>– Lack of knowledge from the workers about the rights of domestic workers was a concern</li> <li>– Provision of relevant skills for domestic workers to be looked at</li> <li>– Health Care services to be accessible to domestic workers as most of them are not members of any medical aid scheme</li> <li>– issue of overtime payment for domestic workers to be looked at as they work long hours without any compensation</li> <li>– Funeral policies for domestic workers to be looked at</li> </ul>

Name of Stakeholder	Issues Raised
	<ul style="list-style-type: none"> <li>– Provision of houses for domestic workers be further looked at and various options to be explored.</li> <li>– The City to launch a campaign of encouraging domestic workers to be registered by their employers</li> <li>– The issue of placement agencies that exploit domestic workers by taking huge amount of monies after the placement to be investigated</li> <li>– The city to consider formalizing the Forum of Domestic workers</li> <li>– The City to look at deploying more metro police in areas where most of the domestic workers travel to access public transport</li> <li>– Employment contracts of domestic workers be written in the language that they can understand</li> </ul>
<b>Rate Payers Association</b>	<ul style="list-style-type: none"> <li>– Concern on the high rates of vacant land in comparison with rates of businesses and residential land as well as incorrect billing system</li> <li>– SANCO requested a broader consultation by the City on credit control system and also provision of room for written inputs from various organized formations</li> <li>– Tshwane team from Revenue and Electricity responsible for reconnection extremely slow; the matter to be looked at.</li> <li>– The issue of 240L bins need to be resolved with speed as it affects communities negatively</li> <li>– Council to resolve the indigent programme process, to be fast tracked and finalized as soon as possible.</li> <li>– Meter reading companies: How are they being regulated as they are private.</li> <li>– Rezoning process taking too long and the turnaround time also take long once the application has been submitted</li> <li>– That the underground and invisible meters be replaced by the standard meters of the City which are clearly visible.</li> </ul>
<b>Business Organizations</b>	<ul style="list-style-type: none"> <li>– The City to assist in providing training to small businesses</li> <li>– City to arrange township exhibitions for small businesses</li> <li>– Consultations to take place with local businesses when shopping malls are being developed.</li> <li>– The City to intervene on the awarding of service delivery projects to avoid nepotism</li> <li>– Informal Traders to be provided with ablution and stalls</li> <li>– The city to look at Agro-processing for the future</li> <li>– Recycling programs/projects to be operated by Informal traders.</li> <li>– The municipality to schedule the Summit for Small businesses in all 7 Regions.</li> <li>– Other cooperatives to be considered as well when opportunities arise.</li> <li>– Policy of the Informal traders to be finalized and implemented</li> <li>– Pretoria Show ground to be accessible to all</li> </ul>

Name of Stakeholder	Issues Raised
	<p>stakeholders and not only to particular churches.</p> <ul style="list-style-type: none"> <li>– Cooperatives to submit their proposals with challenges to the office of the Executive Mayor</li> <li>– There is a need that certain buildings in Cullinan be given to potential businesses.</li> <li>– Centurion Lake to be revitalized</li> <li>– That election processes and date for the elections of the Informal Traders in other regions be finalizes urgently</li> <li>– The City to create a platform of engaging with business sectors and Identity potential role players</li> <li>– That the database of cooperatives be upgraded</li> </ul>
<b>Faith Based Organizations</b>	<ul style="list-style-type: none"> <li>– The city to play a role in assisting the homeless</li> <li>– It was proposed that communication for city's plans be published on the electricity bills accounts</li> <li>– The municipality to assist in combating crimes during church services.</li> <li>– Dates and venues of the indigent registrations to be made known to community members.</li> <li>– That the municipality should consider cancelling all previous debts/ accounts for churches</li> <li>– The municipality to clarify the waiting period for applications of church sites.</li> <li>– The City to assists students with cheaper accommodation and transport</li> <li>– That some churches were donated with small pieces of land as a result they cannot build bigger churches</li> <li>– The City to improve the process of approval of the building plans</li> <li>– That St Paul Apostolic Church in Soshanguve received the piece of land including the title deed but there is no demarcation as there is another church next to them.</li> <li>– Conquerors through Christ in Atteridgeville ministry received the piece of land but the community are against the building of the church, the city to speed up the process of providing them with another piece of land.</li> <li>– 90% of churches in Atteridgeville do not have title deeds</li> <li>– A concern was raised that Tshwane show grounds is now being utilized by churches and not available for other activities.</li> <li>– The Municipality to enforce by-laws to the taverns next to churches</li> <li>– That proper consultation was not done during the donation of pieces of land to churches</li> </ul>

Name of Stakeholder	Issues Raised
<b>Youth Formations</b>	<ul style="list-style-type: none"> <li>– Substance abuse amongst Youth a great concern</li> <li>– Proposed for the signing of MOU between the City and Youth Structures.</li> <li>– Proposed that the municipality should host Youth Business Summit</li> <li>– That the city should have clear policies/plans around children living with disability</li> <li>– That Sizanani Centre in Bronkhorspruit accommodate children with disabilities according to age which is a challenge to parents /guardians</li> <li>– High unemployment rate amongst the youth a concern</li> <li>– That the City should clarify the tender processes</li> <li>– Creation of more Youth desk in townships a necessity</li> </ul>
<b>Transport</b>	<ul style="list-style-type: none"> <li>– That taxis are operating where they are not supposed to</li> <li>– People who are operating from Pubs and Taverns do not have licenses</li> <li>– That Metro police advised them to lodge their complaints on illegal operators to the Province and to date nothing has been done</li> <li>– City Planning Department not cooperating on the issue of routes for Taxis</li> <li>– Clarification of the duration of the By-Law (e.g. Areas of Operation and Radius Kilometres) to be done</li> <li>– The City not implementing the law of Nationalization Transport Act</li> <li>– There is a need for Capacitation of Operations (Summit or Workshop)</li> <li>– The City to promote economic transformation by capacitating relevant stakeholders</li> <li>– It was noted that the city has introduced a forum for transport stakeholders and details thereof are with Transport Department</li> <li>– It was highlighted that the taxi rank was not accommodated during the development of Centurion Mall</li> <li>– Issuing of licenses to bus operators to be looked at very carefully as there are conflicts of interests</li> <li>– That stakeholder participation in the IDP is very important</li> <li>– That Tuk-tuk are operating without licenses and also without consulting meter taxis</li> <li>– The City to upgrade the current facilities that busses and taxis are using</li> <li>– The City to provide additional low-cost modes of transport.</li> <li>– It was highlighted that bus commuters are suffering during service delivery protest when busses are set alight and that the City should deploy more metro police to escort busses</li> <li>– That the database of stakeholders be upgraded</li> </ul>
<b>Mayoral Public Meeting in the</b>	<ul style="list-style-type: none"> <li>– That provision of houses in Olivenhoutbosch is a</li> </ul>

Name of Stakeholder	Issues Raised
Olivenhoutbosch Area	<p>challenge.</p> <ul style="list-style-type: none"> <li>– Some members of the community have been on the waiting list for a very long time and are in possession of approval letters.</li> <li>– The city was requested to intervene on the issue of allocation of houses as there are too many backyard dwellers in Olivenhoutbosch.</li> <li>– That many houses are owned by the youth.</li> <li>– That the process of allocation of houses should be transparent.</li> <li>– That the municipality should provide them with proper toilets.</li> </ul>

### **Responses by the Executive Mayor and Members of the Mayoral Committee:**

#### **Marabastad Business Meeting**

- That the meeting was more of a platform for him and his executive to listen to the concerns and challenges facing Marabastad Businesses.
- That the city wants to utilize this platform to update the stakeholders regularly on what the municipality is doing and reporting back on progress as the city is a responsible and accountable government. He mentioned that the City will work with Marabastad stakeholders in ensuring that Marabastad is being developed.
- That an anti-drug unit at Metro police department has been established and doing very well.

#### **Domestic Workers Association**

- That the City will continue to improve on public transport system and make it more convenient, accessible and affordable.
- That the City is committed to expand on its human settlement strategy, which includes offering the beneficiaries fully serviced stands, and allow them to build their own houses at their own pace.
- That the forum of domestic workers and association will be established.
- The proposal on awareness campaign to make domestic workers and their employers aware of their respective rights and responsibilities was welcomed
- That meetings of this nature will be scheduled regularly as they create platform through which the city engagement with the domestic workers will assist in addressing their issues

#### **Rate Payers Associations**

- The Executive Mayor mention that the meeting was the beginning of a long and fruitful relationship going forward and should therefore become a regular feature of his conversation with the rate payer's associations.

- Rolling out of 240L Bins: The Executive Mayor indicated that due to poor consultation with communities before the distribution of the bins, some members of the community did not receive them. He further indicated that they are looking into the matter and they will communicate with the affected communities for the solution and way forward.
- Customer Care: The Executive Mayor indicated this is one of the crisis areas that they have identified and that they are implementing quality assurance mechanism to improve turnaround- time on customer queries in line with norms and standards to insure that people get service that they are paying for.
- Incorrect Billing: The Executive Mayor has highlighted that incorrect billing is one of the biggest challenge that affect many communities in the city, he also mentioned that the team from Finance department is working hard to resolve existing problems but the long term solution will be resolved through rolling out prepaid meters. He highlighted that the City is still waiting for the finalization of the PEU Contract court case to make the final decision and that in the mean time they will continue to rollout the dummy meters.
- Indigent Register: The Executive Mayor indicated that it is not true that the current administration is intending to cancel this programme. He highlighted that every five years the register must be cleaned up and people must re-register and it is also an opportunity for new people to be registered. He said that special arrangements will be made for elderly people, People with Disability and other vulnerable groups.

#### Youth Formations

- That the meeting is part of ongoing engagements with various stakeholders within the City, with the intention of insuring that the City understands challenges of various constituencies and ensuing that they are being addressed adequately
- That this is an opportunity for the City to share with stakeholders the future plans moving forwards
- That these meetings are also important for the purpose of IDP and Budget consultation processes and broader consultation in creating new laws and amending existing once (By-laws)
- That he doesn't encourage youth tenderpreneurs but he encouraged and promote youth Entrepreneurs'
- That the City welcomes the Signing of the Memorandum of understanding with youth structure in order to strengthen working relationship

#### Business Organisation's

- That the new administration has embarked on a campaign to meet with key constituencies which are important role players such as Business Organizations and other stakeholders in order to address the problems and challenges facing the people of City of Tshwane.



- That the intention is also to create a platform through which to listen to the concerns and suggestions of various stakeholders in identifying key development priorities and proposals to improve service delivery.
- That empty buildings in Cullinan will be made available to interested business entrepreneurs.
- That Tshepo 10 000 programmes will be seriously looked at as there are some challenges.
- The City will be empowering SMME's in consultation with DTI.
- Illegal occupation and allocation of land to foreign nationals will also be looked at.
- In future there will be consultation with local businesses when shopping malls are being developed.
- Agro-processing issue will be investigated and feedback to be provided

#### Transport Stakeholders

- That this will be a regular platform through which the City will engage with Transport Stakeholders and assist in addressing their issues and that issues that require attention of both Provincial and National Government will be escalated accordingly.
- That CIP be approved by Council and have a specific chapter in the IDP document
- That Tuk-tuk still a pilot project
- That traffic impact assessment studies are addressed in the CIP and it is subjected for annual reviews
- That the City will work with DTI to support Women in Transport businesses
- That the issue of Licensing will be looked at and immediate actions will be taken
- That discussions with Transport Authority as well as National and Provincial Department are at an advanced stage.

#### Faith Based Organizations

- That the meeting is part of an on-going engagements with various stakeholders within the City of Tshwane.
- That the main purpose of this meetings is also to ensure that the City of Tshwane understand challenges that are being faced by faith based organizations
- That outstanding title deeds for churches will be looked at and feedback will be provided by means of a meeting of this nature.
- That churches should submit relevant documents in order for them to qualify as indigent and that careful consideration will be followed during this exercise.

#### Meeting in the Olivenhoutbosch Area; Region 4

- That the municipality is committed in working closely with all affected communities to ensure that the problem of allocation of houses is resolved amicably, to the satisfaction of all involved, with compromises to be made by all stakeholders.

- That the municipality won't allow this process to be hijacked by those who never applied for houses.
- That this exercise will first consider the elderly people and the aged and that South African citizens will be prioritised.
- That the process of allocating houses can start the following Wednesday, only if the Olivenhoutbosch community was on board, alternatively the entire process could be kept on hold.
- That for Extension 37 only 253 people will be accommodated.
- Extension 26 only 74 people will be accommodated.
- That for Extensions 21, 23, 24, 25 only 67 people will be considered.
- That from the backroom dwellers, only 55 people were approved.
- That the following Wednesday, 120 people will be allocated some houses and the other 756 people that were supposed to be the recipients will not move in now, as those houses are not yet complete.
- That in 2017, there will be another allocation of houses, including the 743 units that Gauteng province will be allocating in Extension 26.
- Those that do not follow the procedure will be disqualified.
- That everyone with approval letter will be allocated a house and members of the community were urged to have faith in the municipality to resolve the housing allocation.
- That the municipality has never issued a statement that Olivenhoutbosch residents will share the housing allocation with Mooiplaas

Recommendation and way forward:

The following recommendations/ proposals were highlighted from the meeting:

- That for future meetings, invitations with agenda items be sent to stakeholders a week in advance for preparation purposes.
- That all stakeholder engagement sessions be addressed by the Executive Mayor and not by any other delegated person

### **Engagements with Traditional Councils**

The process plan prescribe the first phase of stakeholder engagements which need to be finalised by end of November 2016. This inter alia include the process of engaging the two Traditional Councils.

The City facilitated a separate engagement platform with the Traditional Councils as they represent a different set of interest and were afforded an opportunity to engage with the municipality on development matters as they relate to their tribal area.

Section 81 of the Municipal Structures Act, 1998 (Act 117 of 1998) provides for the participation of recognised traditional leaders in the municipal council in which their area of customary law is located. Section 4 of the Traditional Leadership and

Governance Framework Act, 2003 (Act 41 of 2003) describes the functions of the traditional councils as, amongst others to-

- Support the municipality in the identification of the needs of the community and
- Facilitate the involvement of the traditional communities in the development and review of the municipal IDP for their respective areas

There are two (2) recognised Traditional Councils within the boundaries of the City of Tshwane; they are:

- AmaNdebele Ndzundza Sokhulumu Community of Kgosi Mkhambi Petrus Mahlangu in Sokhulumu, Region 7; and
- AmaNdebele-Ba-Lebelo Community of Kgosi Kgomotso Cornelius Kekana in Hammanskraal, Region 2

The following table reflect the dates at which meetings were held with both Traditional Councils:

**Table 5.3: Schedule of meetings with Traditional Councils**

DATE	TIME	VENUE
4 November 2016	9h00	Majaneng Traditional Council
7 November 2016	9h00	Sokhulumu Traditional Council.

The following issues that were raised by AmaNdebele ba Lebelo on 4 November 2016:

- That after the completion of every project in the Tribal areas and Wards, the Project manager from the municipality should come and conduct the inspection for the purpose of accountability.

The following issues were raised during the meeting with AmaNdebele Ndzundza Sokhulumu representatives on the 7 November 2016:

- There are projects which were implemented by the Provincial Government but were never completed or is not operational i.e.
  - Sports Facilities that was implemented by the Department of Rural Infrastructure Development
  - Community hall that was constructed by the Department of Rural Infrastructure Development has been completed but needs to be taken over by the City of Tshwane
  - There is an issue regarding the Eskom electricity bill at the hall and due to the disconnection of the electricity, the hall cannot be used by the community

- A bakery facility structure has been constructed for cooperatives in the area but has not been completed and needs electronic appliances such as stoves, fridges etc. to be operational.
- The issues on land allocation of residential stands must be addressed, furthermore, the Department of Land Affairs together with the Department of Housing must be involved as they are the major providers of service and infrastructure
- The delay of land transfers between the provinces is another major factor for allocation of residential sides.
- There is a need to have a cultural village in the area, to ensure that indigenous culture of the Tribe is carried over to the next generation and preserved.

Following the meetings which were held with the two traditional Councils, they were requested to consult within their various constituencies and to make a formal submission to the IDP. The following reflect the submissions of the two traditional councils.

#### AmaNdebele Ba Lebelo Traditional Council

- Multi-purpose centre Community Hall and Library
- Sports and Recreation Centre
- Bulk sewerage system
- Inner Roads-Paving surfaces
- Storm Water Drainage

#### AmaNdebele Ndzundza: Sokhuluml Traditional Council

- Upgrading of Cemeteries
- Provision of security for the Senior Traditional Leader and TC offices
- Construction of the Clinic
- Support for the initiation school project scheduled for 2017
- Construction of Cultural Ndebele designed boardroom for Ndabezitha with thatch roof
- Construction of Traditional Council Offices and the Royal House
- Construction of the Cultural village in Sokhuluml
- Construction of the Ndebele blanket plant Factory

In terms of the Traditional Leadership and Governance Framework Act, Act 41 of 2003, the Traditional Councils and their functions are regulated through applicable provincial legislation. Although the City can assist in addressing certain identified needs, support are also required from the Gauteng provincial Government to address the identified needs. This process has been initiated and a response to these issues raised will be provided in the final IDP.

#### **Ward level participation process through ward Councillors**

Ward committees play an important role in the participation process on Council matters. This structure is linked to the term of the elected council and due to the local government elections which were held during August 2016, ward committees have not yet been elected, once elected they will be expected to fulfil their role in participatory processes and in decision making at a ward level.

One of the roles that the ward committees will need to play is that of determining, based on community input, the development priorities as well as project and programme identification to support the development matters in their respective wards for the IDP 2017/21 cycle. Whilst the process of establishing ward committees is unfolding, it is proposed that ward councillors be engaged to determine key ward development priorities. This will be done to allow for ward level input to be factored into the IDP.

On 1 November 2016 a briefing workshop was held with Councillors with the following intentions:

- Explaining their role in the identification of community needs
- Providing them with guiding principles for the identification of ward needs
- Providing and explaining the format in which ward needs need to be captured
- Basic requirements for ward community and stakeholder input into the process to ensure it is credible e.g. ward public meetings focus or targeted stakeholder meetings
- Timeframes for finalisation and submission

A framework for the identification of the issues was provided and these were not only limited to physical infrastructure but also should have considered the socio-economic issues as well.

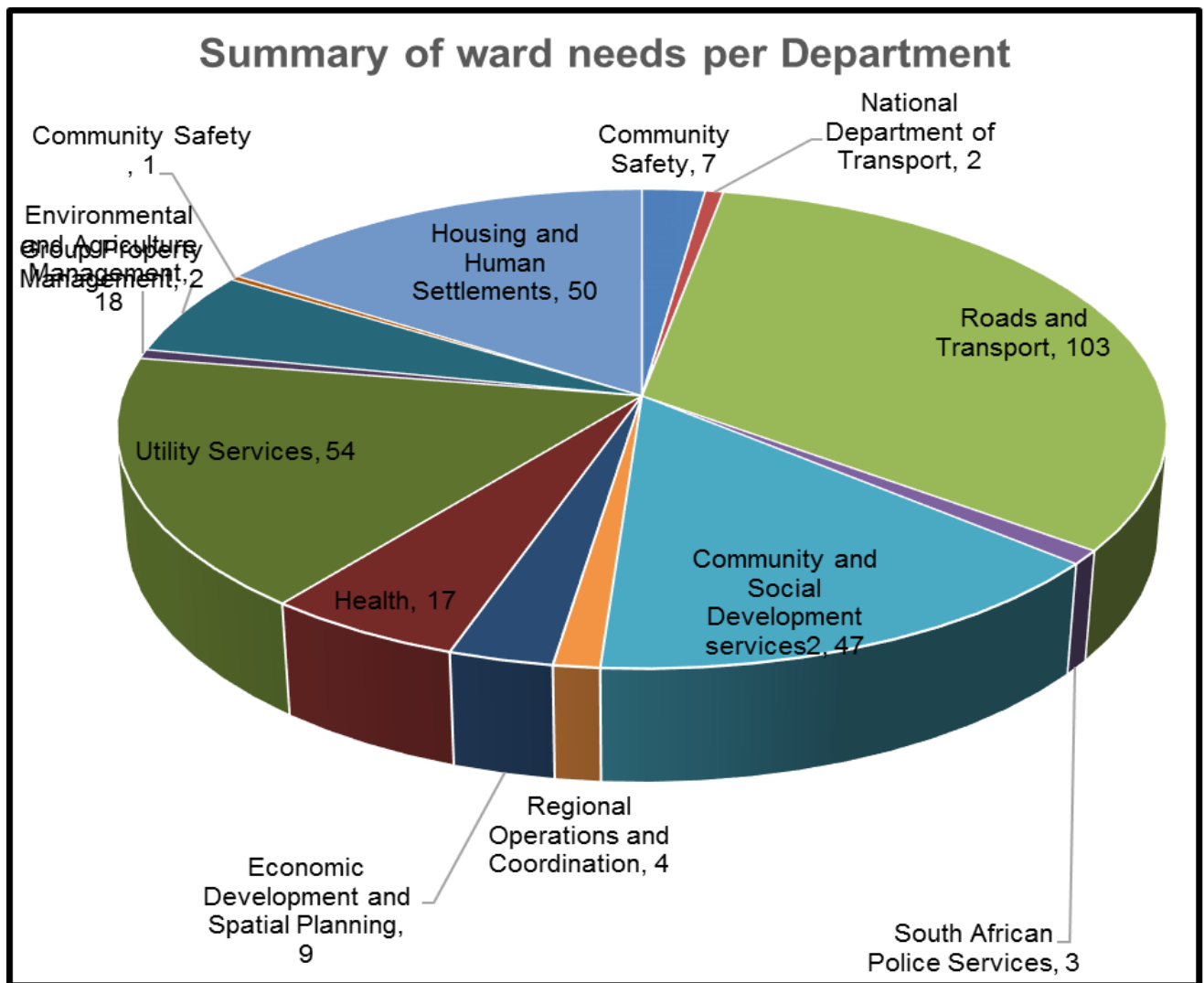
The table below provide a Summary of the above process that was initiated and concluded:

**Table 5.4 Summary of Ward process**

Action	Timeframe	Status
Ward Councillors briefed and provided with documentation	1 November 2016	Done
Ward public meetings / engagements	5- 18 November 2016	Process took longer than anticipated
Ward councillors submit signed off ward needs to OOS	23 November 2016	Just over 50 % of the 107 wards submitted by deadline
Reminder to outstanding wards	December 2016	Done
Status update on submissions	End January 2017	All 107 wards submitted
Consolidation and assessment of submissions	February to March 2017	Done

Below is the summary of Wards needs per Department as identified by various wards:

Figure 5.1 Summary of ward needs per department

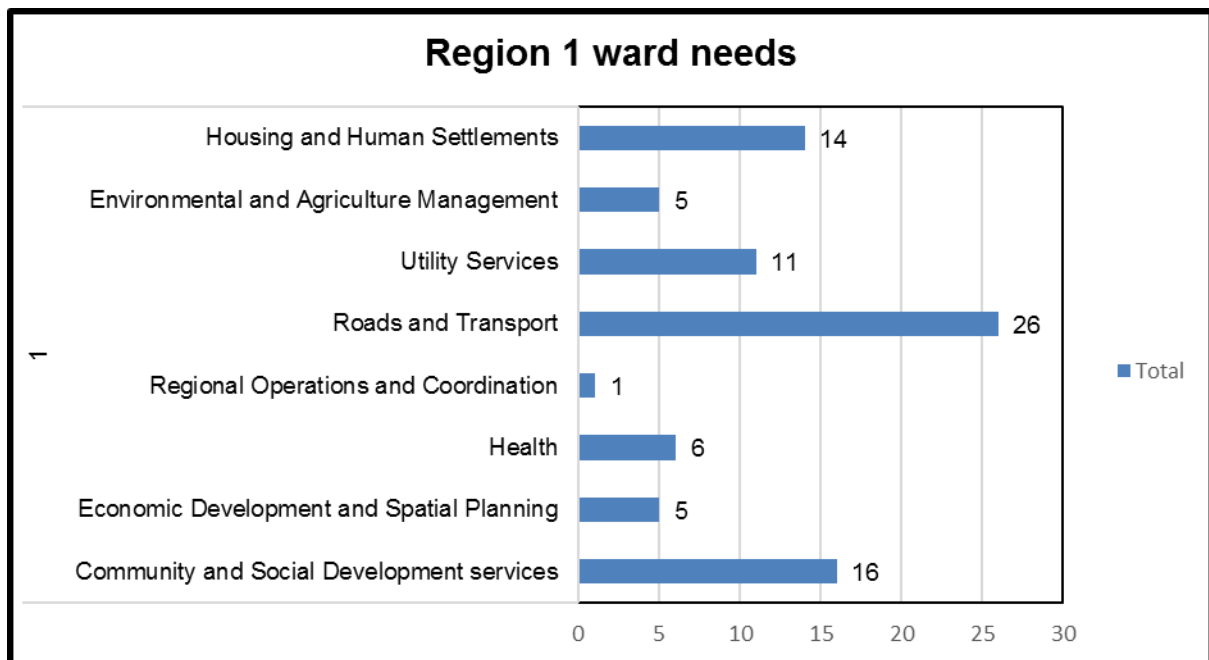


From the above information it is clear that the four most important needs identified by wards per department are as follows:

- Roads and transport – Roads, stormwater and public transport;
- Utility services - Water, sanitation and electricity;
- Community and social services – Clinics, community halls, sport and recreation; and
- Housing and Human settlements – Housing and formalisation of informal settlements

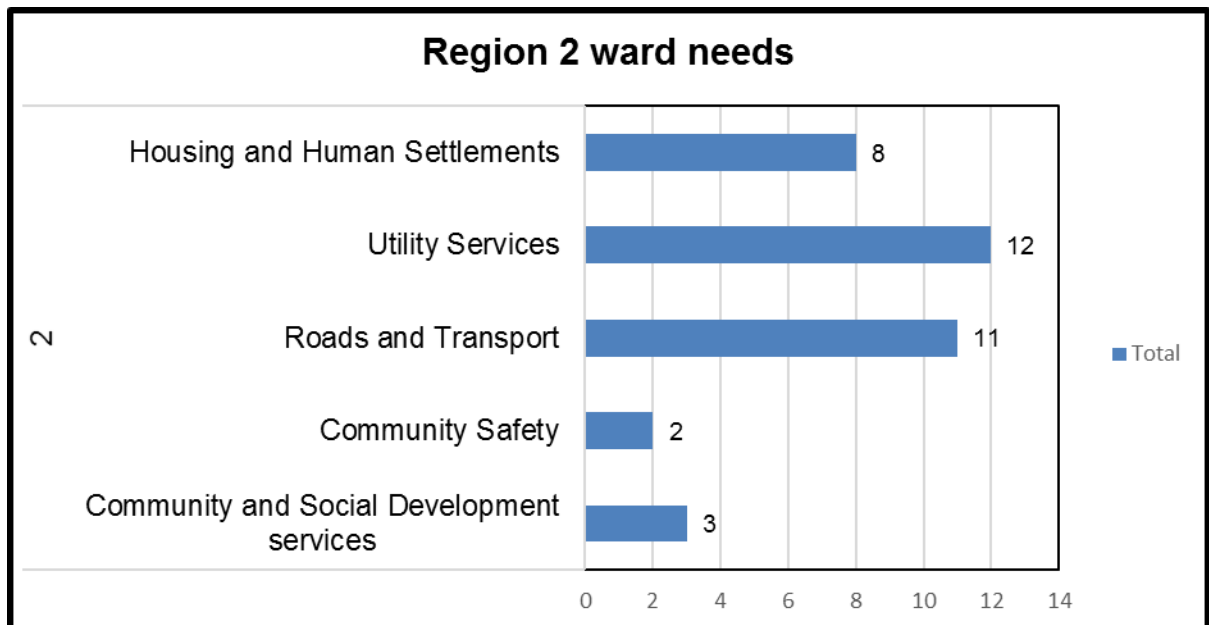
This therefore requires that a large proportion of the financial resources in terms of the budget should be allocated towards these services.

The following graphs reflect the breakdown of the submissions from wards per region.

**Figure 5.2 Region 1 needs**

Most of the submissions received from Region 1 relates the following:

- Tarring of roads, maintenance of existing roads, storm water management;
- Formalisation and housing development in settlements;
- Basic services – water and sanitation and electricity; and
- Social development infrastructure

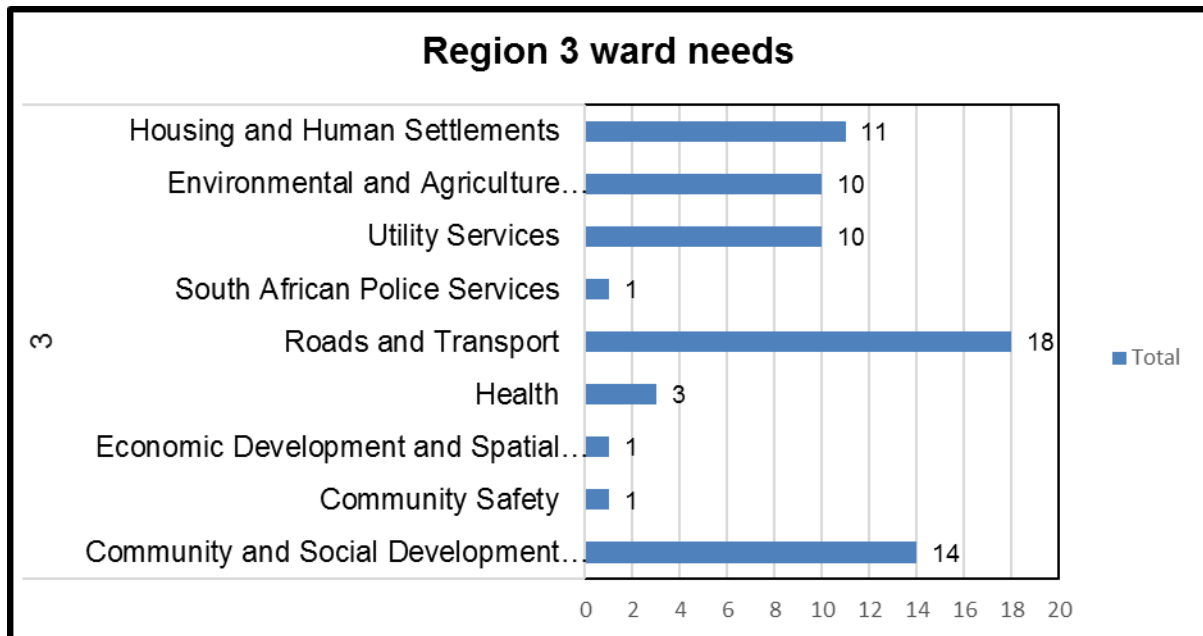
**Figure 5.3 Region 2 needs**

Most of the submissions received from Region 2 relates the following:



- Water, sanitation and electricity is still a challenge;
- Road upgrades and storm water management; and
- Need for addressing the housing

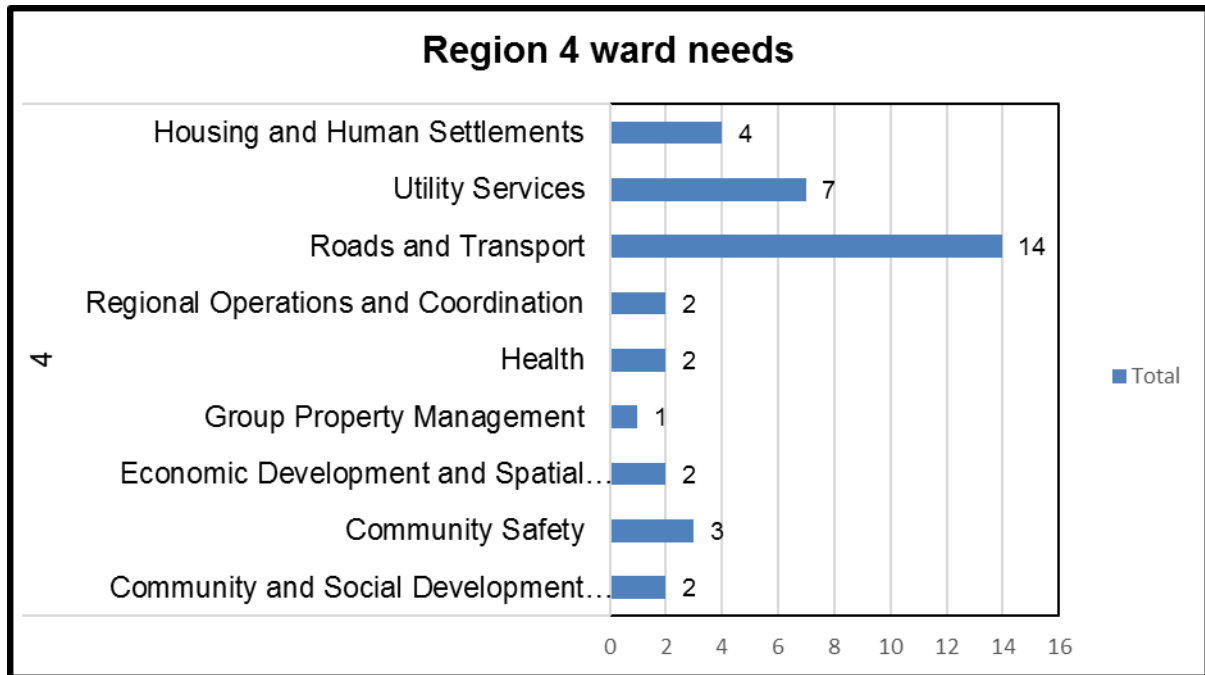
**Figure 5.4 Region 3 needs**



Most of the submissions received from Region 3 relates the following:

- Road upgrades and storm water management;
- Clinics, libraries and sport and recreational facilities;
- Housing matters; and
- Water, sanitation and electricity

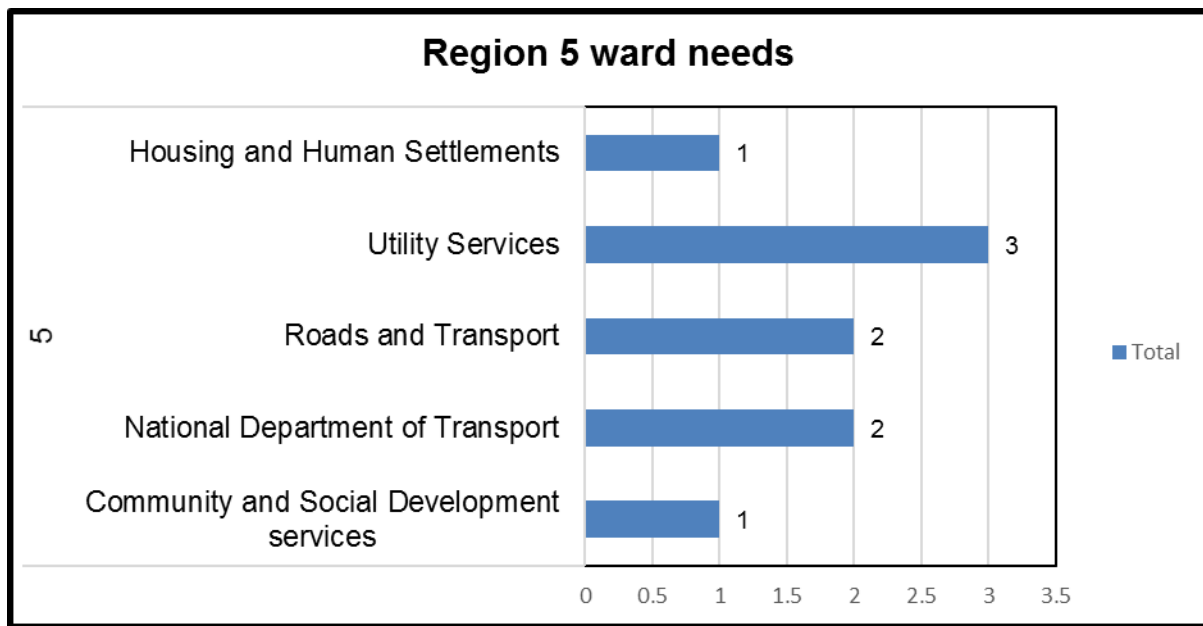
Figure 5.5 Region 4 needs



Most of the submissions received from Region 4 relates the following:

- Road upgrades, storm water management, public transport facilities and traffic congestion;
- Water, sanitation and electricity;
- Housing and formalisation; and
- Safety

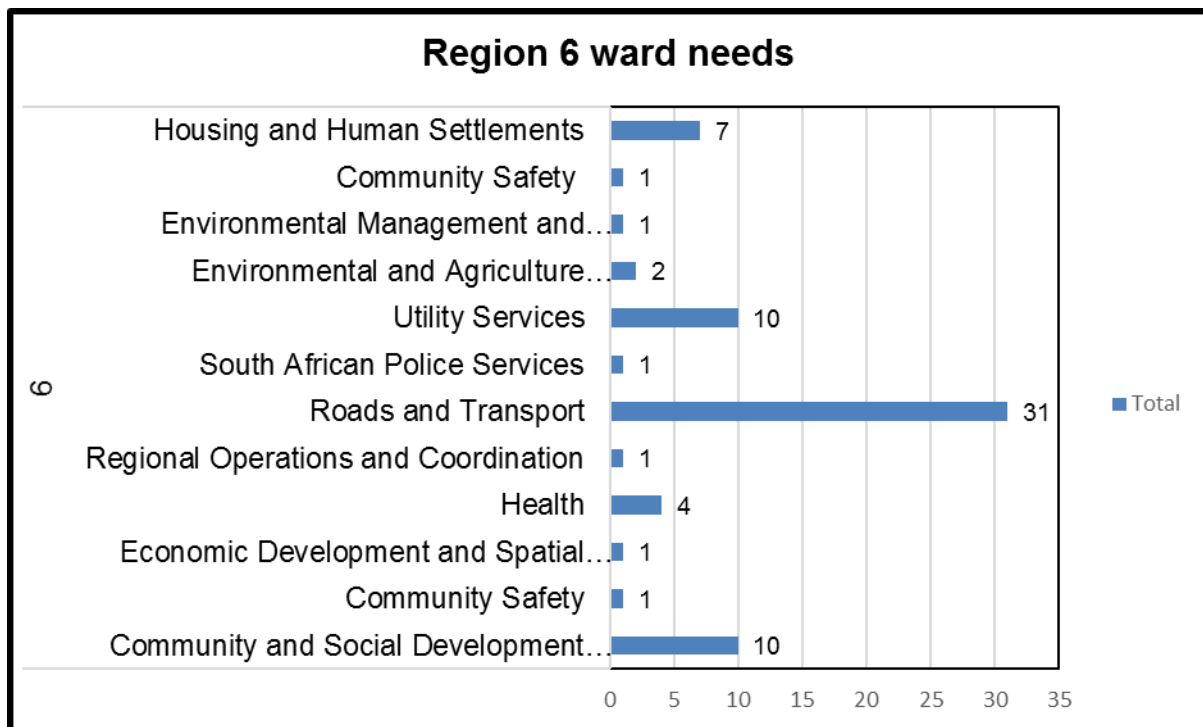
Figure 5.6 Region 5 needs



Most of the submissions received from Region 5 which is a small region in terms of number of wards, with only 3 wards relates to the following:

- Housing and formalisation;
- Provision of water, sanitation and electricity;
- Social facilities and schools; and
- Roads and transport is also an issue that needs attention specifically the provincial roads

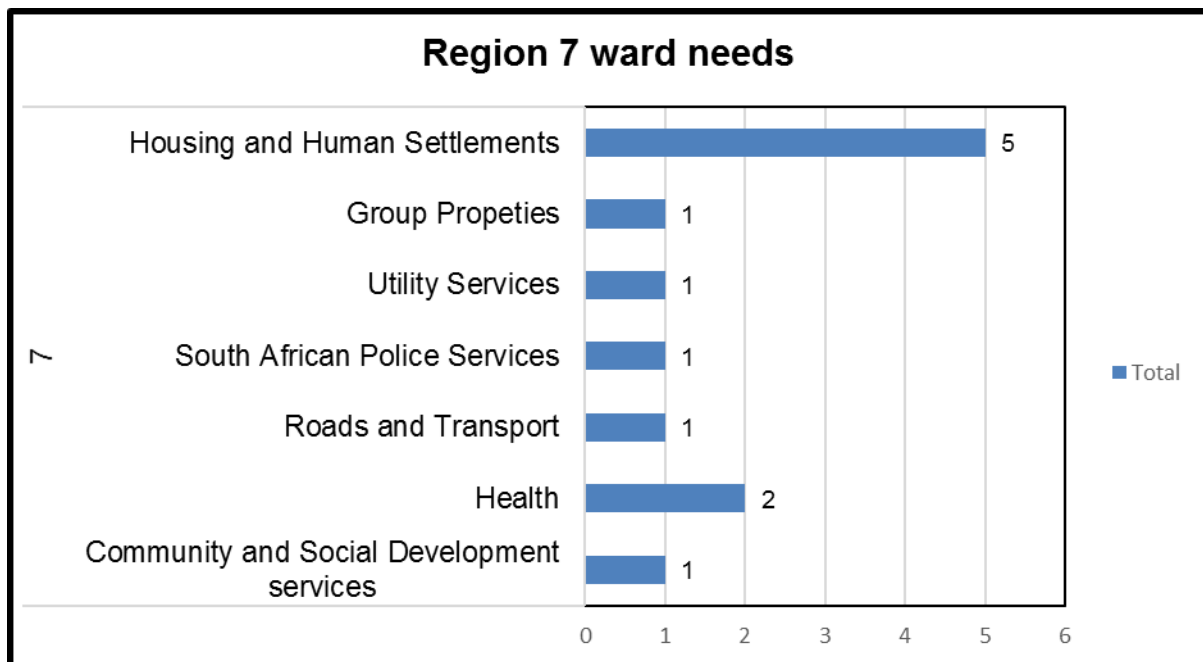
Figure 5.7 Region 6 needs



Most of the submissions received from Region 6 which is a large and diverse region relates to the following:

- Transport issues are dominant in the region with the affluent areas focusing on traffic management and congestions vs. township request on construction of roads, storm water and taxi ranks;
- Provision of basic services – water, sanitation and electricity. Quality of supply is also raised;
- The formalisation of informal settlements and the provision of suitable land for housing development; and
- The provision of sports fields and community halls / multipurpose centres in Mamelodi

Figure 5.8 Region 7 needs



Another small region in terms of number of wards, with challenges relating to the following:

- Provision of housing;
- Access to health facilities;
- Roads and storm water;
- Basic services (water, sanitation and electricity); and
- Sport and recreational facilities.

A process was established with all departments who need to respond to the issues raised with an endeavour to allocate it to a specific programme or project currently being implemented.

In developing the responses, the departments considered the following:

- Establishing if the issues are being addressed through current city processes;
- Capital or operating implication of the issue raised;
- Issues that require further clarity from the communities;
- Issues raised that are a responsibility of another sphere of government; and
- Operational issues that need to be channelled through the Regional Offices.

This process has been concluded for the tabling of the final IDP but the process will continue to deal with issues which are not currently prioritised in the budget to receive attention through planning and budget requests. Details on the ward needs and responses thereto is contained in Annexure B to the document.

## **Phase 2: April 2017**

As part of the legislated consultation process, the following outreach initiatives will be undertaken:

- Ward based public participation meetings were held in wards where community members and stakeholder groups in the ward were engaged and requested to submit comments; and
- A stakeholder summit was held on 18 April 2017 with invited strategic stakeholders on the City's consolidated stakeholder list to allow for engagement to provide input and comments.

The following is a summary of comments has been received during the commenting period which ran from 6 – 28 April 2017.

- The Tshwane Sports Council and its affiliated sporting bodies have raised a serious concern on the lease agreements which the various sporting bodies and clubs have with the city which has lapsed and which are currently being dealt with on a month to month basis.
- Included in the comments above, the maintenance and upkeep of the various sport facilities which are being rented and used has been raised and requested that the upkeep and maintenance must be prioritised.
- Cleanliness in the city overall is a concern and the management of illegal dumping, littering and cleansing of public areas must receive attention.
- The extension of the Tshwane bus services to serve areas in the east of the city such as Hazeldean and the Silver Lakes area.
- Basic upkeep and maintenance of infrastructure such as roads, streetlights and water and sanitation services in various areas.
- Finalisation of the land restitution matter in Wallmansthal which has been going on for a number of years.
- Formalisation of informal settlements and provision of proper basic services to informal settlements.
- The City must ensure that access to all buildings and developments within the city cater sufficiently for people living with disabilities. These residents should also be included in the job creation initiatives which the City facilitate and implement.
- A great concern is raised with the inappropriate urban development taking place on and around the Bronberg Ridge. Housing developments are going up in areas outside of the urban edge and the rural area of Zwavelpoort especially, is losing its rural character.

The following responses are provided on the summary of comments received:

- All lease agreements relating to properties and facilities of the City will be investigated to deal with the matter of lapsed leases. This will also deal with the sporting fraternity.
- General maintenance and upkeep of infrastructure is a priority and the budget and has been allocated over R1.3 billion in the operational budget to deal with this concern.
- The improvement of basic service provision and the formalisation of informal settlements has been prioritised in the IDP and Budget. Over R 105 million has been allocated towards this priority in the 2017/18 financial year.
- The Regional Spatial Development Frameworks are currently being reviewed which will deal with the matters of development across the city and will take concerns regarding the protection of the natural environment into consideration.
- The extension of the public transport network across the city is part of the implementation of the Tshwane Integrated Transport Plan which forms part of the MTREF.

## **Conclusion**

The city is committed through the various programmes and initiatives contained in this IDP and the MTREF but also internal processes to address the comments received and will continue to engage with our communities and stakeholders on all development matters in the city. The chapter contains a record of engagements and discussions with various stakeholders who participate in the development of the IDP 2017/18. Whilst this chapter sought to provide some response on the issues raised, the details of what will be done in each ward as a response to the ward priority issues is contained as an annexure to this document. Further, the SDBIP 2017/18 that will be tabled at Council in June will provide further details on the project details for the ward based and city wide projects so that these can be monitored continuously.

## **6. METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK (Summary of the approved SDF 2012)**

### **The Purpose of the MSDF**

The purpose of a spatial framework is to provide a spatial representation of the City Vision and to be a tool that integrates all aspects of spatial (physical) planning such as land use planning; planning of a pedestrian, vehicular and other movement patterns; planning regarding the location of buildings and built-up areas; planning of open space systems; planning of roads and other service infrastructure; as well as to guide all decision-making processes regarding spatial (physical) development.

The MSDF aims to address the following towards the achievement of the City vision:

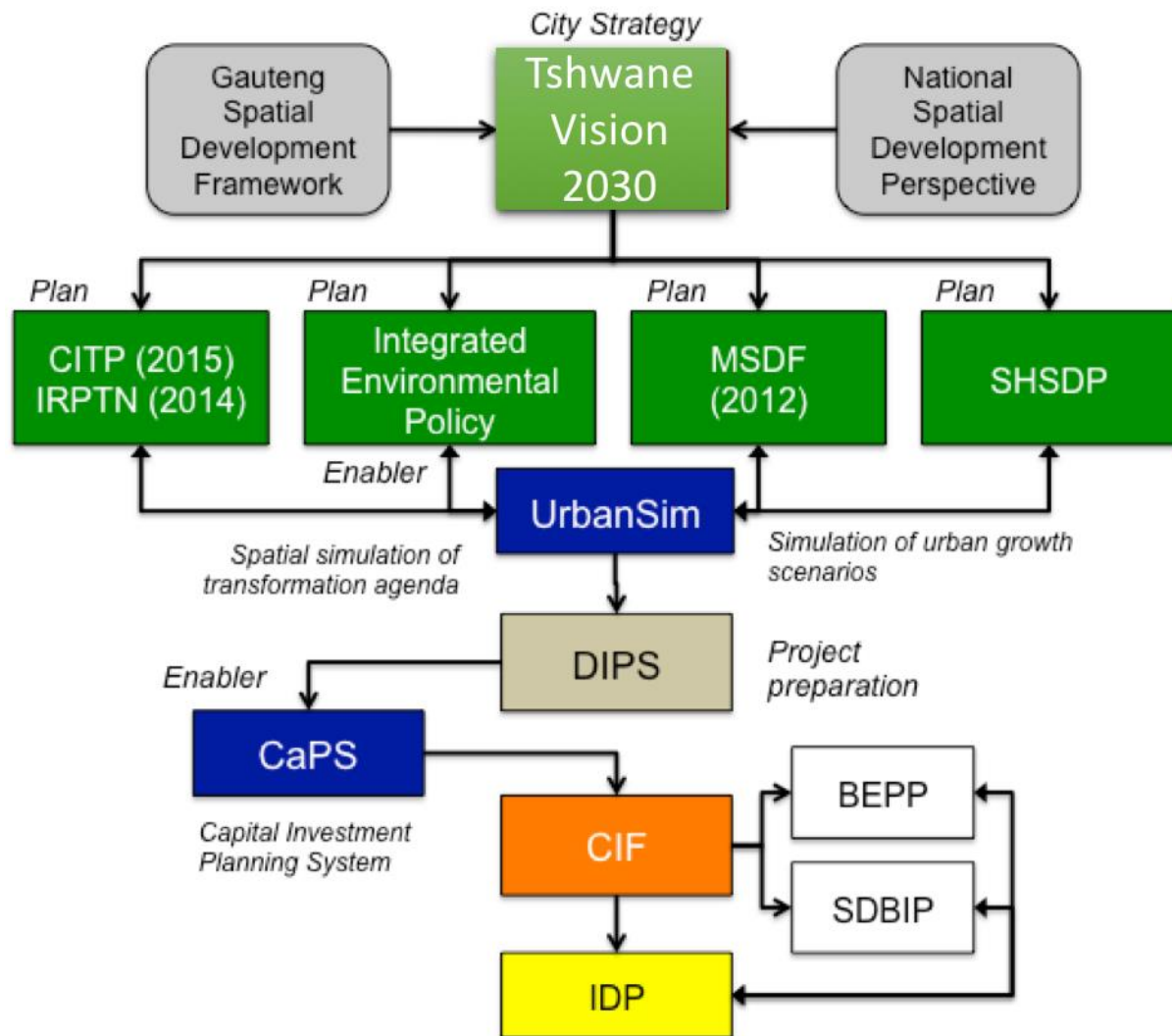
- Social needs
- Restructuring of a spatially inefficient City
- Promotion of sustainable use of land resources
- Strategic direction around infrastructure provision
- Creating opportunities for both rural and urban areas
- Guiding developers and investors as to appropriate investment localities
- Rural management program

### **The Role of the Build Environment Performance Plan (BEPP) in relation to other Statutory Plans**

The role of the BEPP is to summarise and culminate the outcomes of a multitude of spatial planning documents (refer to Figure 6.1) within the municipality, and these plans are spatial strategies that ensure that implementation on the ground is guided by a spatial framework. These documents are informed by National and provincial strategies and policies and those at city level, namely, Tshwane Vision 2030, IDP, MSDF, RSDF and LSDF. Each of these plans have a spatial imperative that the city needs to achieve in the short, medium and long-term.



Figure 6.1: Hierarchy of Spatial Planning Documents and Enablers



The 2017/18 BEPP provides the city's approach towards spatial targeting with primary focus on the transport / movement system as the key spatial restructuring element of the built environment. The city undertook a scientific growth forecasting assignment commissioned by the CSIR, which informed the formulation of the Tshwane Growth Management Perspective. Additionally, Tshwane Capital Planning System (CaPS) has been procured, which is the business planning and decision support tool ensuring that capital projects within the city are evaluated according to quantitative, qualitative and spatial transformation criteria as part of the formulation of the annual developmental (capital) budget.

In the compilation of the BEPP, cognisance was taken of the current institutional challenges and processes including but not limited to the issues and catalytic projects that was raised as part of the State of the City Address. This process was enabled by the Tshwane Capital Planning System (CaPS), which is a capital investment planning tool for providing business intelligence, data validation, project synchronisation and prioritisation, and project progress related information.

CaPS will ensure an inclusive approach towards the transformation of the City as envisaged by the Vision 2030 Goals. Programme and project synchronisation both at municipal and other spheres of government is essential, and it is through the implementation of CaPS that seamless integration will be ensured at various stages of project planning and implementation. A comprehensive prioritisation model embedded in CaPS, built for the City's needs, contains components that will enhance compliance with governance issues, spatial transformation matters, impact and efficiencies and gains for all identified programmes and projects. All spatial priorities and mayoral priority programmes for investment have been categorised, included and mapped for all the seven regions within CaPS.

## **SPLUMA Implications on the development of MSDF**

The Spatial Planning and Land Use Management Act (SPLUMA) was promulgated on 01 July 2015 after it was signed into law in August 2013. This law consolidates all the previous planning laws into one law and makes all planning a municipal function. The legislation elevates the MSDF from being a 'component' of the IDP to being a strategic document that should guide other sector plans over the medium- to long-term. SPLUMA legislates the Capital Expenditure Framework, which should determine the municipality's development programmes, depicted spatially.

The currently the approved MSDF, even though approved prior to the promulgation of SPLUMA, has been found to be largely aligned to the intended outcomes of SPLUMA except for some terminology and referencing of outdated legislation that requires updating (see attached). SPLUMA requires that the MSDF is reviewed within 5 years of promulgation of the Act, which means prior to July 2020.

No authority that is mandated to make a land development decision may make a decision that is inconsistent with the MSDF. To this end, all sector plans that impact on development in space should be fully aligned to the provisions of the MSDF.

## Hierarchy of Spatial Plans in Tshwane

The MSDF represents the spatial interpretation of desired growth and development directions for the City. It spatially focuses economic and infrastructure development and gives spatial expression to the development plans above (CDS and IDP), both for the long- and the medium term.

This MSDF is informed by the legislative framework, national and provincial plans. In addition, existing planning within Tshwane was taken into account in conjunction with sound planning principles that are required in order to achieve the city vision.

The **MSDF** is a statutory requirement and focuses on the overall municipal/metropolitan scale.

It is therefore important that, apart from the MSDF, an appropriate hierarchy of spatial development frameworks be developed, guided by the principles, objectives and intentions of the MSDF. These different spatial frameworks should focus on smaller geographical/functional areas and contain appropriately detailed guidelines to describe the context and intentions and contain meaningful proposals for potential developments. Each lower level spatial plan should support the higher level frameworks/plans that informed their formulation and may not be in contradiction with the higher level planning frameworks.

## Spatial Analysis from the MSDF 2012

### City Growth

The city historically developed around a **strong central core** as a mono-centred city. The main roads converged radially on the centre, linking the suburban areas to the Inner City. Private investment patterns changed over time with increasing car ownership and a ring of **satellite nodes developed**, usually along or at the intersections of the major arterials, and mostly to the east and the south of the former Tshwane area. These satellite nodes developed into viable decentralised locations (also called edge cities), creating a **multi-nodal urban form**.

Although the radial transportation network remains in place, only a limited concentric transportation network has been developed. This poorly developed concentric transportation structure limits the movement between the various decentralised locations and does not support the effective functioning of the city's multi-nodal structure.

The decentralised nodes are mostly suburban in nature and are not on an optimal urban scale. The areas around the decentralised nodes are characterised by low density sprawl, dependency on the private motor vehicle and separation of functions. The **restructuring of the nodes and the intensification of the development in**

**the areas around the nodes are necessary in terms of the spatial principles of the applicable Spatial Planning legislation.**

These decentralised nodes, especially in region 6 and the south-western portion of region 4, are also the focus of the vast majority of **economic growth** in the Tshwane area, and must be regarded as a resource for the city. The direction of growth is not incidental – the strongest economic forces are **pulling from the south**. The energy generated within this core of economic activities between the southern/south-eastern portions of Tshwane and the northern and eastern areas of Johannesburg together form the engine of the Gauteng Power House and are reinforcing the broader Gauteng Urban Region.

No decentralised nodes developed in the outlying areas to the **north**. These areas are still dependant on the Inner City for the majority of their needs. The distance to and inaccessible location of poor neighbourhoods highlights their **dislocation and marginalisation** since they have the lowest provision of social facilities, **the longest travelling times and the highest population density**. These are also the areas that are **growing at the fastest rate (population growth)**. This situation complicates the lives of the majority of residents. In addition, the present situation can only be maintained with high government subsidies for public transport and is therefore unsustainable.

The **Inner City** has always had a significant government function and still accommodates a large percentage of government activities. However, the relocation of Provincial government to the City of Johannesburg contributed greatly to the decline of office occupancy rates in the Inner City and the decline in ancillary and subservient activities. The decentralisation of specifically private investment from the Inner City to decentralised nodes has also impacted significantly on the Inner City in recent years. This trend of private decentralisation is a worldwide phenomenon and may be irreversible. The trend to convert office buildings into residential stock has begun in recent years – on the one hand creating living opportunities within the Inner City, but this trend is not necessarily backed up by **strategies to improve the overall living environment in the Inner City in terms of provision of supporting facilities such as schools, day care facilities and recreational facilities**.

The role of the **Inner City as heart of the Capital City**, home to the public sector, retail and entertainment node for the northern areas, centre of the African urban spirit and place of more than half of the city's employment opportunities should however be enhanced and celebrated. The City aims to do this through the **Inner City Regeneration Programme**, which encompasses various reform strategies.

## **Gauteng Spatial Development Framework**

**G2055** initiative is an initiative aimed at preparing the Gauteng City Region for a population of approximately 28million people by 2055. The G2055 vision is *for Gauteng to have a strong knowledge capital, be the hub of innovation to Africa, and be a liveable, prosperous, competitive, equitable, accessible and sustainable City*

region. The initiative is spatially addressed in the Gauteng Spatial Development Framework (February, 2011).

The Gauteng Spatial Development Framework (GSDF) proposes future spatial structure for the Gauteng Province and is clear on the fact that ***growth must be structured and directed; not merely accepted and accommodated***, and thus informs and guides the Tshwane MSDF with specific regards to the location and nature of the physical development in the province.

The following five critical factors were identified in the GSDF:

- Contained urban growth
- Resource based economic development (resulting in the identification of the economic core)
- Re-direction of urban growth (stabilise/limit growth in economically non-viable areas, achieve growth on the land within the economic growth sphere)
- Protection of rural areas and enhancement of tourism and agricultural related activities
- Increased access and mobility.

The primary structuring elements identified within the GSDF are those of:

- urban mixed-use activity nodes
- open space and green system
- public transit and movement routes
- urban corridors and activity spines

## 1. Node Hierarchy

The GSDF defines nodes as being intense concentrations of activities, containing a mixture of uses such as retail, office, entertainment, community facilities and an adjoining residential component. A node can be oriented towards a local, neighbourhood, regional or city-wide community. The GSDF identifies a hierarchy of nodes that correspond with Tshwane nodes in the following manner:

**Table 6.1 Hierarchy of nodes**

GSDF	MSDF
Regional Node	Capital Core/ Tshwane CBD
Primary Node	Metropolitan Node
Secondary Node	
Secondary Node	Urban Core
Tertiary Node	
Local Node	Emerging Node
Specialist Node	Specialised Nodes

## 2. Public Transit and Movement Routes

The GSDF indicates that the existing rail systems and BRT routes should form the basis of the transport system for Gauteng for both freight and public transport. The GSDF further takes cognisance of the proposed extended/upgraded rail links, providing a commuter line that connects Mabopane to Hammanskraal and Hammanskraal to the Capital Core (urban structuring initiative), as indicated in the Tshwane MSDF . It also indicates that the proposed Tshwane inner-rail loop of the Tshwane MSDF would significantly increase urban consolidation potential as a well-located public, subsidized initiative.

### **3. Open Space and Green System**

The GSDF open space and green system is informed by the provincial dolomite belts, soil fertility for purposes of agricultural activity, conservation areas, ridges, watercourses and heritage sites.

### **4. Urban Corridors and Activity Spines**

The GSDF defines an urban corridor as being the largest of the urban structure elements, consisting of a combination of structuring elements at the metropolitan and regional scale of the urban environment. It is typically a linear element linking two metropolitan nodes, showing that it is origin and destination driven (i.e. it goes from somewhere important to somewhere important). A corridor of this nature is complex in profile and the mix of uses, resulting in varying development intensity and a width.

On the other hand, an activity spine is a linear mixed-use element of urban structure containing an intense concentration of facilities which are all focused along a major transportation route. It is the focal point of an urban corridor or can be a separate element. The spine is traffic oriented, accessed through public and private transport. It carries various modes of traffic which give direct access to a range of high intensify land uses. Pedestrian movement in between passing trade characterizes the nature of the activity, supported by a strong residential component.

Major Regional Corridors identified are:

- N1 (Polokwane/Tshwane/JHB/Vaal/Bloemfontein/Cape Town)
- N 4 (Rustenburg/Tshwane/ Witbank)

Major Provincial Corridor:

- R21 from Tshwane to OR Tambo International Airport

### **5. Consolidation and Densification**

Given the comprehensive system of discernible urban corridors and public transport potential within Gauteng, consolidation of urban development should be concentrated around existing primary urban centres, urban nodes, and urban corridors and along urban activity spines.

## The New Growth Path and Tshwane Strategic Investment Plan

The *spatial* response to this Growth Path will encompass the identification of the following:

- Infrastructure focus areas
- Agricultural and agro processing focus areas
- Knowledge economies
- Rural management programmes to improve livelihoods and stimulate employment

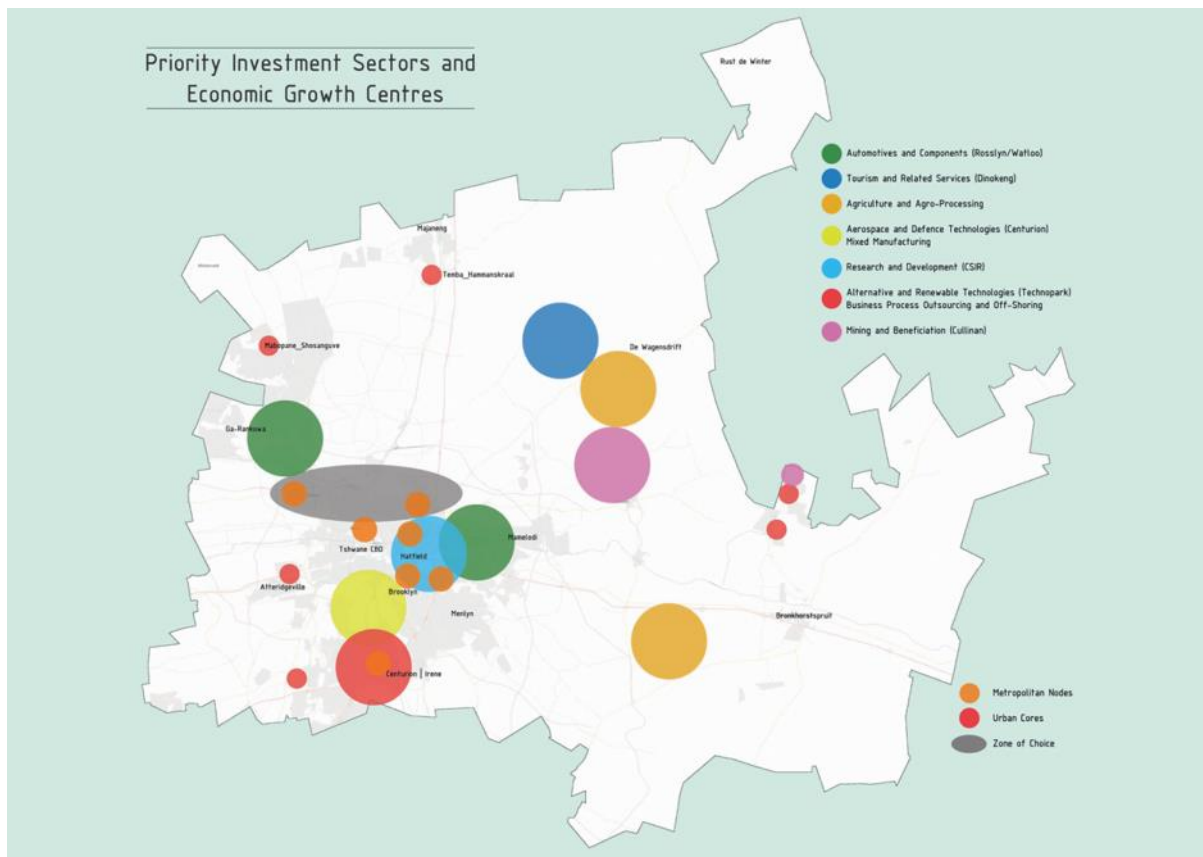
But the 'economic growth basket' will require synergy among several building blocks. And given that many of these interventions towards an improved economy will happen in space, the spatial plan is imperative. Needless to say, the 'spatial basket' is also much wider, and the response will thus have to encompass a more complex tapestry which will be weaved together into a complementary and integrated strategy.

In March of 2011, the CoT approved the *Tshwane Strategic Investment Attraction, Facilitation and Aftercare Plan (2011-2016)*. The purpose of the plan is *to outline the City of Tshwane's strategic and systematic approach to the investment promotion, attraction, facilitation and retention functions, with the view to increase investment volumes in the City which would have a direct impact on economic growth and development, as well as to increase the employment creation potential of the economy*. The plan identifies the following as priority investment sectors for:

- Automotives and Components
- Tourism and Related services
- Agriculture and Agro-processing
- Aerospace and Defence technologies
- Mixed Manufacturing
- Research and Development
- Alternative and Renewable Technologies
- Business Process Outsourcing and Off-shoring
- Mining and Beneficiation

The relevance of the Strategic Investment Attraction, Facilitation and Aftercare Plan is critical in identifying areas for focused infrastructure investment in order to ensure continued growth in existing economic nodes and identification of new opportunity areas for economic growth.

**Figure 6.2 Priority investment sectors and economic growth centres**



The alignment or misalignment of existing nodal areas with investment sector areas will also guide the City as to where greater amounts of public funding is required, versus areas that already have huge private sector funding support.

It is indicated that the bulk of the City's first order nodes (metropolitan nodes) are largely already spatially integrated with a number of our economic investment centres on a strategic scale. The city's second order nodes (urban cores) are not.

In terms of the MSDF, urban cores have been identified as target areas for focused public intervention, on order to ensure that they develop into economic nodes of greater significance.

The planned Integrated Public Transport Network (IRPTN) (further discussed under in chapter 5- Movement and Connectivity) will be an important intervening measure to address this misalignment. The relevance of the Strategic Investment Plan is to stimulate economic growth in Tshwane. The IRPTN will address the spatial disjuncture of economic growth by:

- Improving access to economic opportunities, social spaces and services by bridging geographic distances, affordability, reliably and safely
- Stimulating economic development by supporting the movement of goods from points of production to where they are consumed, thereby facilitating regional and international trade



- Integrating labour markets through strategic linkages

## **Spatial Policy**

Growth management is a spatial concept that encompasses all aspects that ensure efficient, optimal and sustainable development of the physical environment. A key principle of this concept is smart growth. The smart growth principle guides development such that resources and services are provided in such a manner that they meet the demands of the affected population over the long-term.

Nodes are those parts of the city where development should be focused. The widest variety of services and opportunities should be provided at nodal points, at degrees relative to their nodal status.

The urban edge will, as a growth management tool contributes to the achievement of strategic objectives by conserving valuable environmental areas which would otherwise be compromised by development, and by promoting the use of existing infrastructure through redevelopment, infill development and densification within the edge, thus achieving development that is sustainable. The urban edge also encourages the agglomeration of economies within the edge, encouraging scattered secondary or emerging nodes to develop into consolidated primary nodes as opposed to leapfrog development. The edge also ensures the protection of land- an exhaustible resource- by encouraging Brownfield developments instead of Greenfield developments.

Due to the high cost of providing bulk infrastructure in low density areas, urban sprawl should be discouraged. It is imperative that available infrastructure within the nodes are used optimally. This requires densification and intensification of land uses through compaction and infill developments. Transit-oriented development will optimise the potential and infrastructure capacity of nodes while combating urban sprawl through movement between and connectivity of focus areas of development.

## **Compaction and Densification**

The urban environment is characterised by qualities that are essential in terms of equity, liveability and sustainability, such as diversity, choice, uniqueness, sense of place and opportunity.

It is the intention of the MSDF to restructure our fragmented, inequitable and inefficient urban form to create a more equitable, efficient and environmentally and financially sustainable urban dispensation in line with current legislation and policy.

The compaction and functional integration of the city are normative directives from national level, and implies:

- (1) higher density urban development,
- (2) greater mixing of compatible land uses and

(3) focussed concentration of high-density residential land uses and intensification of non-residential land uses in nodes, around transit stations (such as the Gautrain, BRT, Rail and other formalised intermodal transport facilities (See chapter 5 discussion of *the spatial economy of transport planning*) and along activity corridors.

Corridors and Activity Spines are identified and described in the following sections. Intensification should specifically be focussed around these structuring concepts as first priorities of intervention.

Densification goes hand-in-hand with this approach to intensification and is also structured around the Metropolitan Activity Areas, Corridors and Activity Spines. The purpose of such higher density residential development is to provide residential opportunities in environments that are high-intensity, mixed use, pedestrian friendly and supported by public transport where a number of economic and social opportunities are available within a relatively compact geographical area. These areas should also be linked to the Tshwane Open Space System to support their viability. The increase in residential densities will result in the reduction of private recreation and entertainment space. Special attention should, therefore, be given to the creation, design and management of public spaces as well as communal and social facilities (e.g. parks, sports fields, educational facilities etc.) in areas where higher densities are developed.

The principles and sub-principles for densification are as follows:

**Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups**

- A range of housing opportunities and choices should be provided
- Social integration must be promoted throughout the metropolitan area

**Densification must contribute to the overall structure and functionality of the metropolitan area in that it takes place in a balanced, focussed and structured way:**

- Densification should be concentrated around specific strategic areas
- Density levels should be linked to the functional characteristics of various parts of the city
- Densification and compaction must be applied in such a way that diversity and unique spatial characteristics are maintained within the city
- Density should relate to the surrounding area

**Areas targeted for densification should be well served by public transport, or have the possibility to be well served by public transport in future.**

**Areas targeted for densification should be treated as whole environments, with investment in infrastructure, landscaping, open spaces and social facilities ideally preceding higher density developments**

- The development and retention of quality living environments should be ensured, which means that indiscriminate application of densification should be avoided.

- Mixed land uses in areas earmarked for densification should be promoted
- Developments should promote safety and security in an area

**Open space, farmland, natural beauty, critical environmental areas, and cultural assets should be preserved and enhanced.**

**Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)**

- Areas of opportunity should possess real current or future potential for growth and development and such potential should also be desirable from a restructuring point of view
- (Re-) development should be promoted within existing built-up areas as an antidote to greenfield developments

The Compaction and Densification Strategy of 2005 identifies four general density zones within the municipal area. The principles of the Compaction and Densification Strategy have been practically applied within the Regional Spatial Development Frameworks.

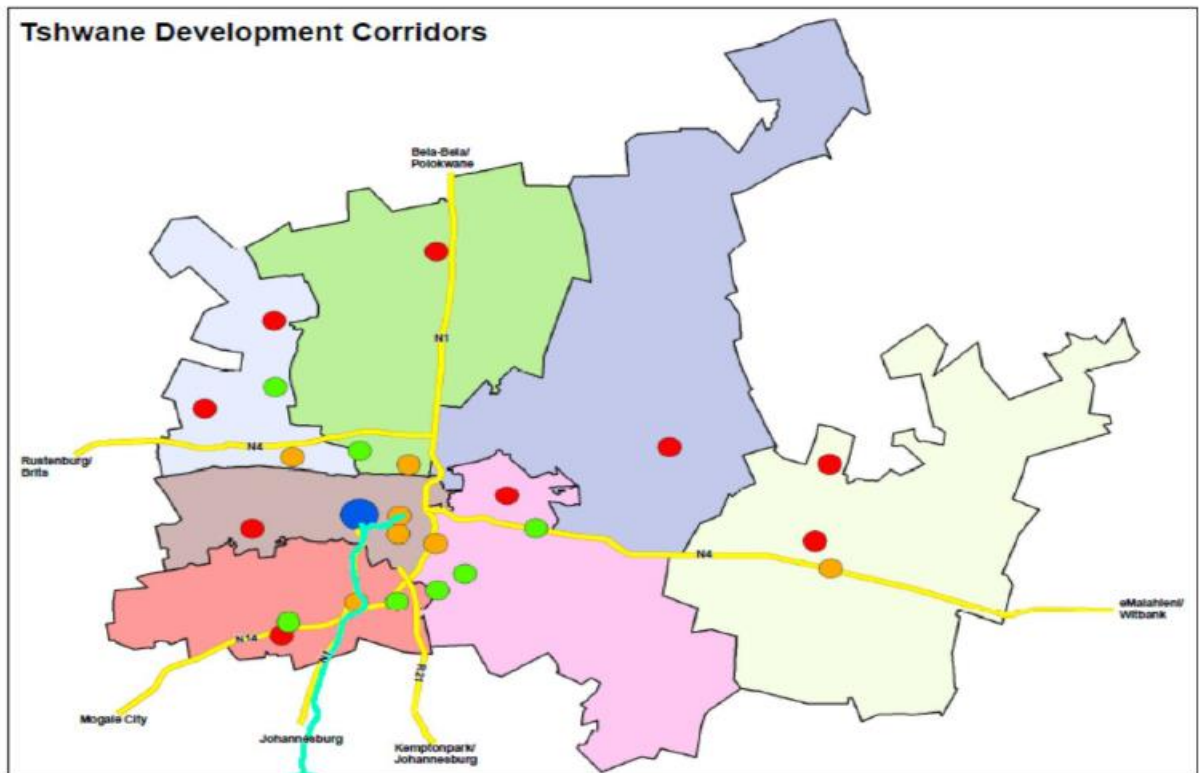
The following Key Density Zones (area-specific elaborations to be found in RSDFs) are identified in the Densification Strategy, which are:

<b>Concentration zones:</b> <ul style="list-style-type: none"> <li>• High Density Zone</li> <li>• Transit Oriented Zone</li> </ul>	<b>Linear Zones:</b> <ul style="list-style-type: none"> <li>• Development Corridor</li> <li>• Activity Spine</li> </ul>	<b>Suburban Densification Zones</b> <ul style="list-style-type: none"> <li>• Low Density Zones</li> <li>• Restructuring Zones</li> </ul>
--	---	--

## **Spatial Development Concept**

The Spatial Development Concept will integrate the spatial planning directives of the previous section of this document into a strategic spatial vision for the city.

Figure 6.3 Tshwane development corridors



The Spatial Development Concept is a visual illustration of the three spatial building blocks:

- Nodes and Activity Areas
- Movement and Connectivity
- Environmental Structuring Concept

The Spatial Development Concept is structured around the following building blocks, which are interrelated:

#### **Nodes and Activity Areas**

**Nodes** or 'nodal areas' are activity areas that have been identified for focused economic development and growth, with a view to rationalizing available resources.

The benefits of concentrated Activity Areas at a metropolitan level as a structuring mechanism include the support of a viable public transport system, the concentration and intensification of various activities (diversity) at appropriate locations that are highly accessible, economies of scale creating opportunities, and the management of these areas to address degradation and 'leakage' of development pressure. Residential densification, around these activity areas is one of the strategies to ensure the viability of these areas and promote a public transport system.

#### **Hierarchy of Nodes**

Understanding that the current needs far outweigh the resources, it is important that the City focuses on the opportunities that exist for exponential

growth and investment in the long term. These opportunities will be determined within the spatial vision by indicating where growth will occur in transport, housing, energy, water, recreation, education, health infrastructure and services, as explained by the smart growth concept. The spatial plan will promote efficient and effective resource allocation ensuring that resources such as infrastructure are delivered in the right place and at the right time. The spatial plan also provides a sense of certainty for the future and thus investor's confidence.

From the city profile, it is clear that the City of Tshwane holds a number of spatial opportunities. The city must operate within the context of the greater Gauteng City Region so that it can position itself to be competitive relative to the other major nodes within the province. This means that nodes within Tshwane should serve a specific function either within the local, provincial or national context. Various nodes can complement others or be functionally independent. The key issue is that nodes within the city do not compete but complement and support each other so that the synergies between them maximize the potential of the city as a whole. The diversification of various nodes will allow resilience and adaptability by maximizing all spatial opportunities in turn maximizing economic growth opportunities through strategic investment decisions.

An important distinction is made between four nodal typologies:

- Capital Core
- Metropolitan nodes
- Urban Cores
- Emerging Nodes

**Capital Core-** the Tshwane Inner city is identified as the Capital Core as it is the city's first order node amongst all metropolitan nodes. Traditionally, the inner city is also the Central Business District (CBD) of major cities. Tshwane is no different.

Historically, the inner city was the geographic heart and centre of what is now the Tshwane area. Over time, though, due to the extension of the Tshwane boundaries, the Inner City is no longer geographically central, but still plays a very important role with regards to the concentration of retail, office and government buildings to be found in the area. The Capital Core must:

- Be the focal point for housing government departments
- Be developed to a higher than average density, supporting all principles of smart growth

**Metropolitan Nodes-** these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the Tshwane context, Metropolitan nodes are those nodes within the City (economically) benefiting primarily from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of

the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment. Such localities are also where the most extensive land use rights, including densities, are likely to be supported, in line with the growth management strategy.

**Urban Cores-** former township areas were developed as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes, the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme (NDPG) is a nationally funded programme that aims to address the improved quality of environment in urban cores.

**Emerging nodes-** over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors.

While the future of these nodes is uncertain, the *potential* for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

### **Specialised Activity Areas**

There are nodes within the metropolitan area that are characterised by largely mono-functional land uses taking up large, concentrated and defined space. The character of the areas ranges from industrial to high technology smart industries, medical facilities, educational and research facilities. It is important to acknowledge these specialised activity areas not just in terms of their scale, but because of their sphere of influence in terms of generating movement, opportunities and linkages with other areas. These linkages do not only refer to physical linkages, but also to “connectivity” in a broader sense, such as between institutions of learning and research.

Specialised Activity Areas include such areas as:

- Industrial Estates
- Research, Innovation, Education and Technology Institutes
- Airports
- Tourism nodes

Within Tshwane, we find all of the above-mentioned specialised areas. The Rosslyn Automotive Cluster (Industrial Estate), Innovation Hub (Research, Innovation and Technology) and Dinokeng Nature Reserve (Tourism node) are Blue IQ projects that have been established within Tshwane.

There is a hierarchy of spatial plans within Tshwane. The MSDF is supported by 7 Regional Spatial Frameworks, which are, in turn, supported by a number of Local Spatial Development Frameworks. The detail of the nodes that have been indicated above, are discussed in further detail within the RSDFs and LSDFs, indicating details such as the relative size, intensity and intended land uses, typologies and spatial character within the different nodes.

## **MSDF 2012: Movement and Connectivity**

Movement and Connectivity encompasses all aspects of transport, including non-motorised transport. Transport is important because it affects:

### **Spatial Form**

The goal is to define a spatial structure based on the nodal development (densification and intensification at strategic points) approach which is supported by public transport. An efficient spatial form will address matters of spatial restructuring and socio-economic equality.

### **Environmental Impact**

Transport systems are large consumers of space. The goal is to reduce the uptake of Greenfield sites through public transport and transit-oriented development.

### **Economic Development**

Mobility is one of the most fundamental and important characteristics of economic activity as it satisfies the basic need of going from one location to the other, a need shared by passengers, freight and information. All economies and regions do not share the same level of mobility as most are in a different stage in their mobility transition. Economies that possess greater mobility are often those with better opportunities to develop than those suffering from scarce mobility. Reduced mobility impedes development while greater mobility is a catalyst for development. Mobility is thus a reliable indicator of development.

### **Social Equity**

Goal is to reduce the economic impact of travel on communities that are far removed from work opportunities relative to residential location. The Mobility Gap between different populations can have substantial impacts on opportunities available to individuals.

The City's movement system comprises of three of the four forms of transportation i.e. Rail, Road and Air, excluding Maritime transport. The manner in which all three of these transport means are developed, managed, maintained and integrated will largely determine the success of the nodal concept. The sustainability of the nodal

concept is dependent on connectivity and ease of access from one node to the other.

The success of all focussed spatial interventions relies on the adequacy of that spatial form to meet the needs of all users. As efficient as a node may be within itself, the node will not be sustainable if the target users cannot access it. The regional profiles indicate clearly that Tshwane accommodates quite a number of nodes, some performing very different functions, while others are quite similar. The synergies that exist between the various nodes are what enable many of them to be sustainable. But those synergies cannot exist without efficient linkages between the nodes. Connectivity via the movement system effectively strings the city together, making it 'smaller' and providing equal access for all residents to all nodes, integrating labour markets and providing flexibility around options for residential location versus one's place of work.

The movement system in an urban environment is literally the arteries of the city – without these linkages there can be no economy, no inter-relatedness, and no "life". Movement systems can be used to create access, structure settlements, and promote integration, diversity and mixed land use. Movement (flows of people, finance, goods) defines the energy networks of settlements. Accordingly, more continuous lines of movement represent planes of greater accessibility and, therefore, become the more desirable planes of connection for intensive use. Significantly, the energy potential contained in lines of movement is released through stopping, not through movement. Different movement modes have different patterns of stopping.

While Tshwane has a comprehensive system of higher order mobility routes and development corridors, there are still several localities that are not adequately catered for. Integrated transport planning within Tshwane includes not only the planning side of things, but also inter-governmental relations. Some of the localities referred to above fall under provincial or national control and not under the local authority. Thus, co-operative planning will remain pertinent to the process required to address such areas.

### **Inter-City Movement**

Tshwane forms part of a larger Gauteng urban region and its economy is closely connected to the spatial economy of the neighbouring municipalities and also nationally is part of the economic engine of the country. From that perspective the following routes are the most important to connect the areas of opportunity in the city to other areas of economic significance:

- the PWV2/ N4 Platinum Highway, linking Tshwane in an east-west direction to port destinations (Maputo/Walvis Bay) and several significant regional centres of production
- the N1 and R21, linking Tshwane to the economic growth areas of Gauteng, and creating amazing opportunities in terms of economies of scale, visibility, accessibility



- the PWV9/ Western bypass (north), the missing link in the west and north of Tshwane. Without this link, large areas of our city remain marginalised in terms of access to areas of opportunities, and lack support for the latent development potential of the west and north.
- the R25 Provincial Road serves the eastern part the eastern corner of the CoT and the south –east between Bronkhorstspuit/Sokhulumu and Kanan/Bapsfontein. This route also links the area with O.R. Tambo International Airport.
- the R104 Provincial Road runs through from region 3 to region 7 in an east-west direction parallel to the north, and forming part of the N4 to the east. This route links up with Emalahleni Local Municipality to the east.
- The R513/R42 road links the industrial area of Ekandustria with O.R. Tambo International Airport

## Spatial Economy of Transport Planning

The importance of the movement and connectivity system was explained in the introductory part of this section. All strategic matters relating to transport (spatial form, environmental impact, economic development, social equity) have a place in the spatial economy. The nodal concept, on which the sustainable, resilient and competitive Tshwane will be based, is reliant on transit-oriented development. **Transit- oriented Development** (TOD) supports the basic spatial concept of sustainability (both social and economic). Sustainability in this context refers to the optimal use of land through densification, infill and consolidation and spatial integration giving equal opportunity; correction of spatial imbalances, creation of sustainable human settlements and social equity.

Transit-oriented development will address spatial restructuring by ‘stringing’ the city’s node’s together, effectively making the city ‘smaller’ and travel distances ‘shorter’ through an efficient integrated rapid transport network (IRPTN), which will optimally integrate road, rail and air transport within the CoT. The IRPTN will thus allow that, regardless of one’s location in the city, equal access for all residents to all nodes will be provided for. In addition, labour markets will be spatially integrated and true flexibility regarding one’s place of residence versus place of work will be catered for. A city that operates efficiently, as has been described above, is a competitive city.

### Roads and Transport Department of the City of Tshwane

A spatial analysis of the CoT, looking at where the highest densities of people currently reside, versus their distance from work opportunities, was done. The analysis identified the following areas as areas that will need to be addressed by the IRPTN. The IRPTN will attempt to:

- Efficiently integrate various commuter transport modes
- Maximise coverage of commuter transport system
- Minimise need to transfer from one service to another

The IRPTN may be served by road or rail transport. This includes the Gautrain. What is very important is that the catchment area of each node is fully covered in terms of

feeder route systems that support the main transportation routes i.e. a person should not have to walk more than 800m within a node to find a form of public transport. It is equally important that the route to the public transport mode or facility is fully pedestrianised. Current indications around the IRPTN indicate that nodal connection will be provided for. Further guidance on future plans for the IRPTN network can be obtained from the Transport Department.

## **Conclusion**

This chapter has summarised the Council approved 2012 MSDF and has highlighted some key spatial development concepts that guide investment by both the public and private sectors. It has also alluded to some of the national spatial planning programmes that are implemented within the City such as SIPs 7. It should be noted that the implementation of the MSDF is reflected in how the development applications approved, closely adhere to the MSDF. By the end of 2017/18, the City would have revised its Regional Spatial Development Framework which will be the base information for the review of the MSDF. In all its review and implementation, the City should work towards redress spatial imbalance to achieve social justice.

## 7. CAPITAL INVESTMENT FRAMEWORK

### Introduction

This chapter seeks to communicate the capital planning process and major projects for the City in line with the 2017-2020 MTREF and the Built Environment Performance Plan (BEPP). The chapter summarises the details of the planned projects for the MTREF. These projects are ward-referenced and are used as a basis to determine some of the targets in the scorecard that is outlined later in the document.

The Gauteng Spatial Development Framework (GSDF, 2011) elevates the prominence of Tshwane as part of the Gauteng Economic Core, where an administrative capital city and home to the public sector is highlighted. The importance of the concentration of economic opportunities in the southern and eastern parts of Tshwane (now forming part of Regions 5, 6 and 7) is also highlighted. The following five critical factors were identified in the GSDF and their spatial implications are included in the MSDF 2012 (Chapter 7):

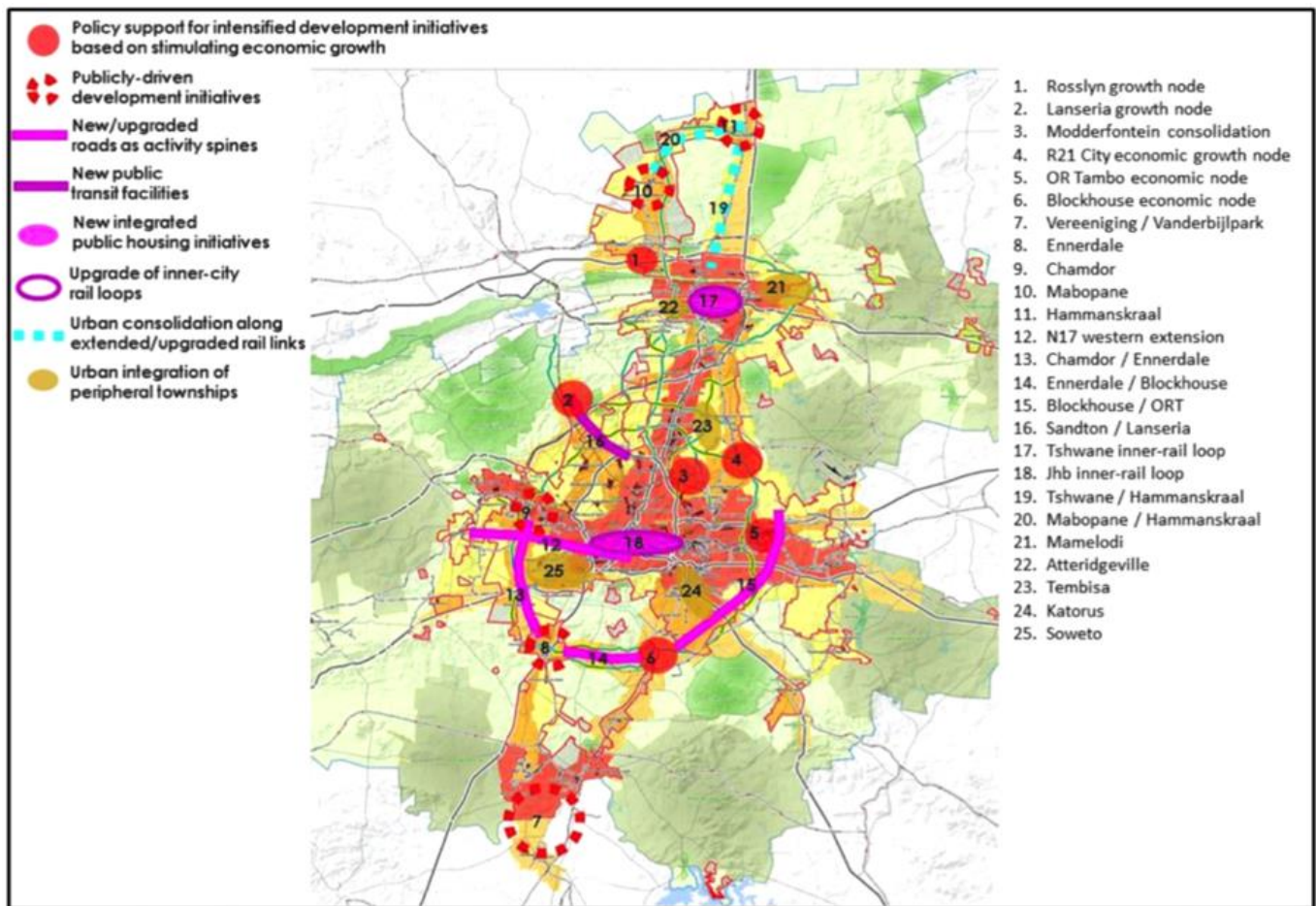
- Contained urban growth
- Resource-based economic development (resulting in the identification of the economic core)
- Redirection of urban growth (stabilising/limiting growth in economically non-viable areas, and achieving growth on the land within the economic growth sphere)
- Protection of rural areas and enhancement of tourism and activities related to agriculture
- Increased access and mobility

The defined objective is to promote Gauteng as a global city region, i.e. “to build Gauteng into an integrated and globally competitive region where activities of different parts of the Province complement each other in consolidating Gauteng as an economic hub of Africa and internally recognized global city region”.

This idea seeks to promote Gauteng’s development agenda by positioning the province as a globally competitive city region. The key objective is to reduce unemployment and poverty through promoting economic growth, integrated strategies and joint planning between the different spheres of government. The nodes of regional importance, as contained in the Gauteng City Region Spatial Development Framework, as well as the regional transportation links, are shown below. In terms of the spatial plan for Gauteng, the following are of specific importance for Tshwane:

- Gauteng economic core, focused along the R21 and N1 with Rosslyn as its northern anchor (and the Johannesburg CBD and OR Tambo International Airport in Ekurhuleni as the other anchors of the economic core)
- The support of corridor development along the N1 and R21
- The importance of the R21, N1, proposed PWV9, N4 (towards Bronkhorstspuit) and proposed PWV2 as mobility spines
- Rosslyn, Mamelodi, Atteridgeville, Hammanskraal and Mabopane are highlighted as important economic development nodes in the Tshwane metropolitan area
- Automotive cluster/Pyramid Freight Hub and Wonderboom Airport identified by Tshwane as significant economic nodes in the north

Figure 7.1: Gauteng city region strategic initiatives



Source: Gauteng Integrated Transport Master Plan (2025)



- Sector plans will be aligned with strategic investment decisions relating to bulk infrastructure
- Data will be synchronised into Spatially Based Interventions
- Efficiency through the creation of Business Intelligence through providing strategic planning information at a central point

## CIF Approach towards realising the Spatial Vision: Guiding Principles

In line with the city's strategic objectives of promoting economic growth and alleviating poverty, the CIF approach is based on the following principles:

- Focus bulk of investment in areas that present potential for sustainable economic development;
- Infrastructure investment should primarily support localities that will become major growth nodes to create regional gateways;
- Go beyond the constitutional obligation of providing basic services and focus on localities economic potential and/or growth in order to attract private-sector investment. Thus enabling the stimulation of sustainable economic activities and the possibility of creating long-term employment opportunities;
- In areas of limited potential focus shall go beyond the provision of basic services, and further include human resource development, labour market intelligence and social transfers. Communities provided with information and opportunities are more likely to exercise their choice to access or even migrate to areas with greater economic potential.
- Future settlements to be developed along corridors and nodes in order to redress the spatial distortion caused by past policies.

## Priority Nodes and Corridors for Spatial intervention

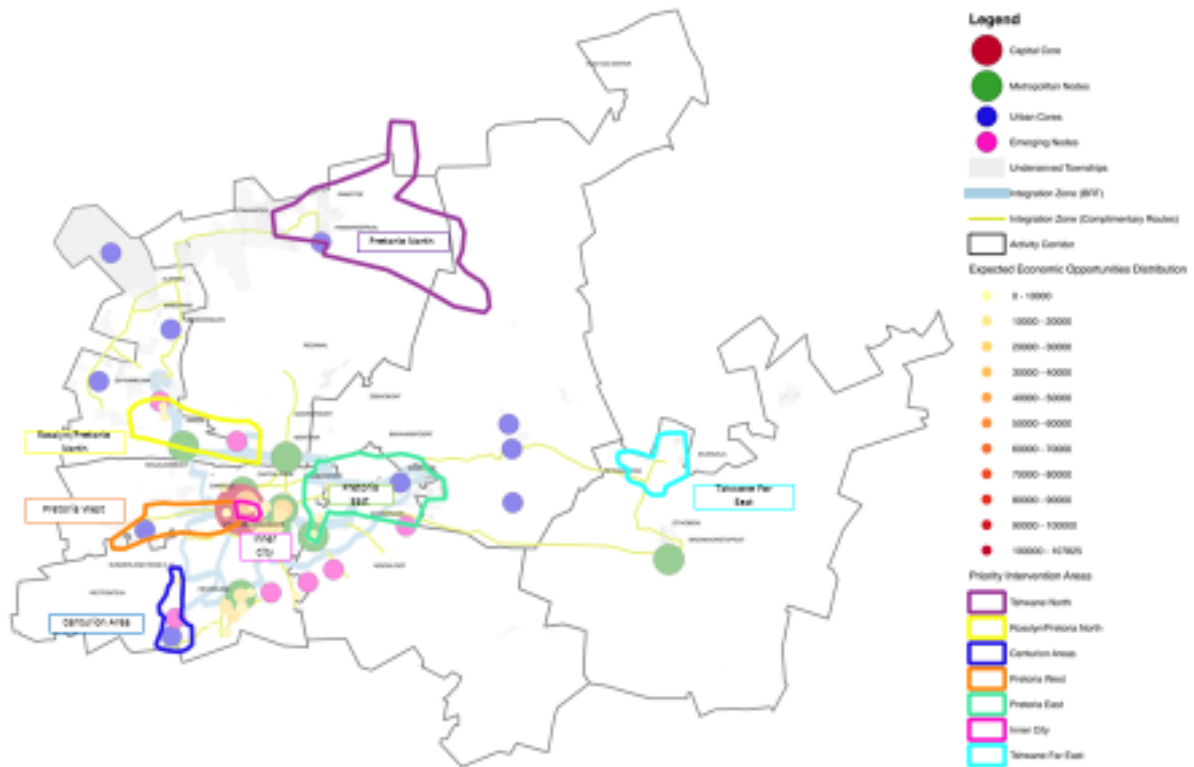
Focus areas for Spatial intervention have been identified each with its unique character and potential to contribute to achieve objectives set for spatial integration.

**Table 7.1: Priority nodes and spatial intervention nodes**

Quadrant	Description
Northern	Hammanskraal and Babelegi Nodes
North West	Rosslyn and Wonderboom Airport Nodes
South East	Menlyn, Waltloo, Silverton, Mamelodi and Eersterust
South	Sunderland Ridge, Monavoni and Olievenhoutbosch
Central West	Pretoria West Industrial, Atteridgeville, Fort West and Lotus Gardens
Capital Core	Inner City
Far East	Ekandustria, Ekangala and Rethabiseng

## Priority Nodes and Corridors for Spatial intervention

Figure 7.3 Priority nodes and corridors for spatial intervention nodes



## Capital budget

Budget guidelines related to the compilation of the 2017/18 capital budget were compiled in consultation with the City Planning and Development Department and IDP Office, and were used by departments as a basis for planning. Budget indicatives were issued to the City Planning Department to take into consideration and also to align budget proposals to departmental business plans, objectives and targets.

Departmental budget hearings were held from 6-8 March 2017 by the City Managers Technical Budget Steering Committee to assess capital budget proposals, the outcome of which was that departments were required to prioritise capital projects and resource allocations within the context of affordability, taking into account contractual obligations, ongoing infrastructure maintenance and executive commitments.

The compilation of the capital budget in terms of internal capacity (Council funds) is based on the application of the following principles:



- The new Political Vision
- City of Tshwane Strategy
- National Treasury Strategic Development Review (SDR)
- Value for Money report

The above was further supplemented with the following guidelines:

- Reworking of departmental budgets to “budget neutral”
- Priorities as contained in the city strategy and political vision
- Strategies on how to respond to the value for money
- What is the department ‘s strategy on generating revenue and ROI
- Capital investment plan (where are the priority areas)
- Detailed breakdown of contract for the next 3 years
- Commitments for the 2017 /18, 2018/19 and 2019/20

The above were supported by sound financial management principles, which were considered during the compilation of the 2017/18 MTREF, in order to ensure that a financially sound and funded budget is tabled.

## Capital Budget per funding source

A large portion of the capital budget has been allocated towards the provision of basic services and the addressing of backlogs. This is in support of Strategic Objective strategic objective to provide sustainable services infrastructure and human settlements which addresses infrastructure and human settlements provision in the 2017/18 MTREF. The balance of the funding allocations has been prioritised in terms of promoting shared economic growth and job creation, safer cities and integrated social development and organisational development, transformation and innovation.

The following table indicates the 2017/18 Medium-term Capital Budget per funding source:

**Table 7.2: MTREF capital budget per funding source**

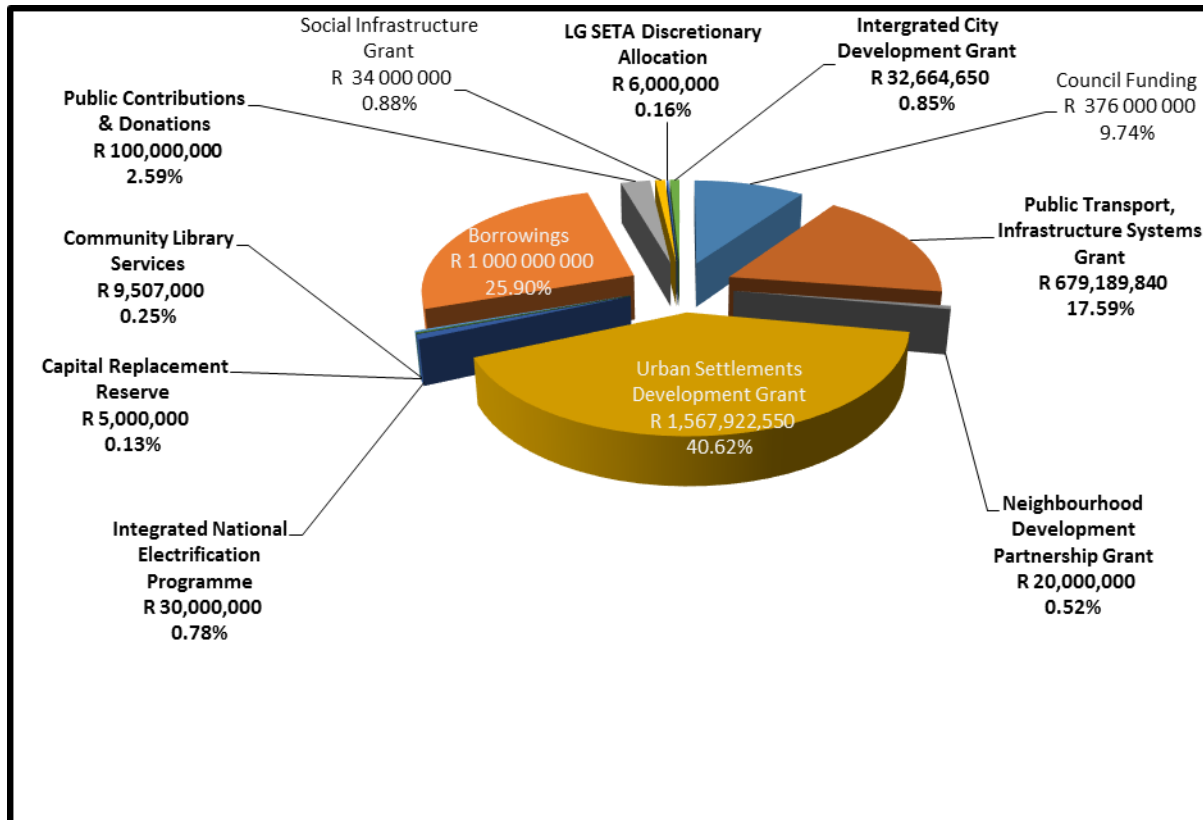
Funding Source Description	Budget 2017/18	%	Estimate 2018/19	Estimate 2019/20
Council Funding	R 376 000 000	9.74%	R 500 000 000	R 650 000 000
Public Transport, Infrastructure Systems Grant	R 679 189 840	17.59%	R 396 285 230	R 426 086 000
Neighbourhood Development Partnership Grant	R 20 000 000	0.52%	R 30 000 000	R 45 000 000
Urban Settlements Development Grant	R 1 567 922 550	40.62%	R 1 646 976 580	R 1 739 911 310
Integrated National Electrification Programme	R 30 000 000	0.78%	R 40 000 000	R 40 000 000
Capital Replacement Reserve	R 5 000 000	0.13%	R 5 000 000	R 5 000 000
CLS - Community Library Services	R 9 507 000	0.25%	R 10 000 000	R 10 500 000
Borrowings	R 1 000 000 000	25.90%	R 1 000 000 000	R 1 300 000 000
Public Contributions & Donations	R 100 000 000	2.59%	R 150 000 000	R 150 000 000
Social Infrastructure Grant	R 34 000 000	0.88%	R 0	R 0
LG SETA Discretionary Allocation	R 6 000 000	0.16%	R 8 000 000	R 0



Intergrated City Development Grant	R 32 664 650	0.85%	R 37 673 700	R 39 783 400
<b>TOTAL</b>	<b>R 3 860 284 040</b>	<b>100.00%</b>	<b>R 3 823 935 510</b>	<b>R 4 406 280 710</b>

The following graph illustrates the above table in terms of the allocations per main funding source:

**Figure 7.4: Allocations per main funding source**



### Capital budget per department

The following table indicates the 2017/18 medium-term capital budget per department:

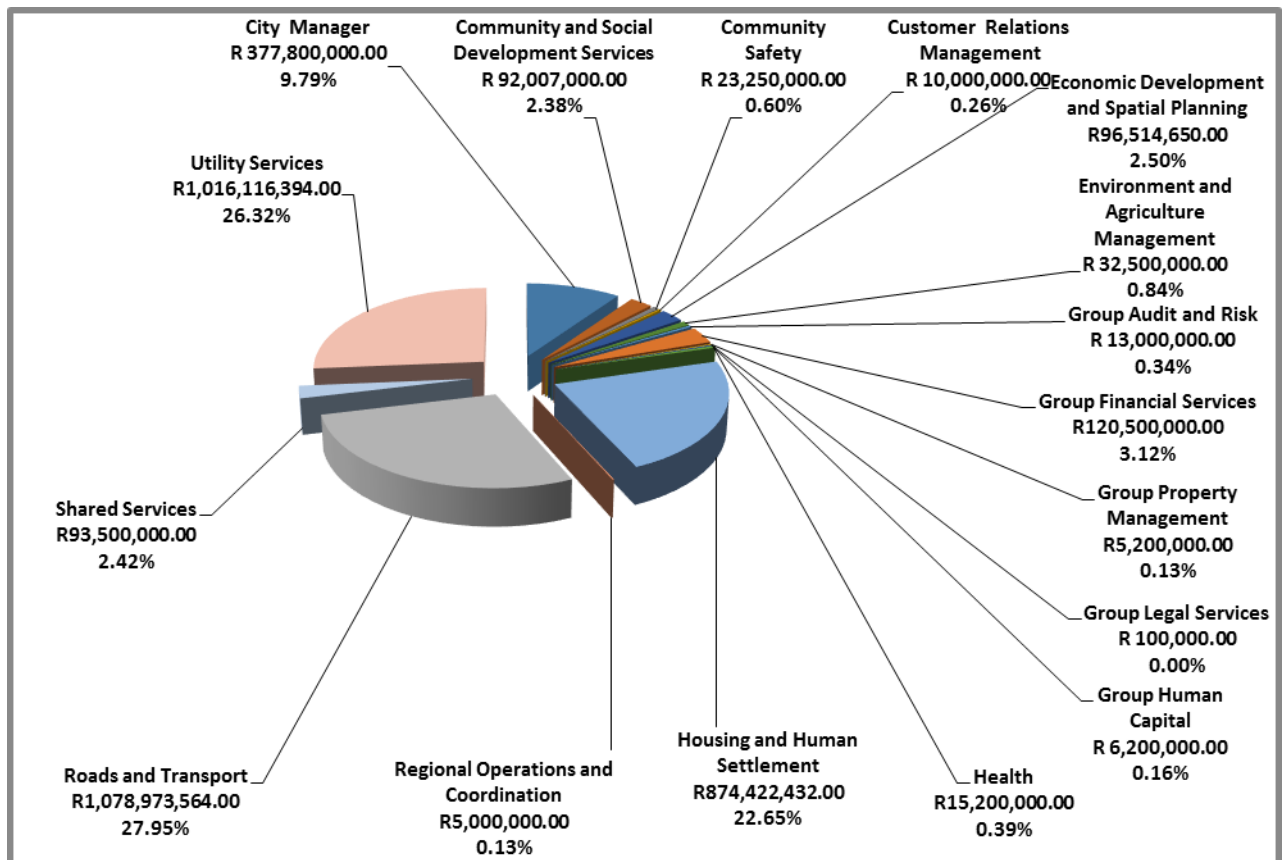
**Table 7.3: Medium term capital budget per department**

Department	Budget 2017/18	%	Estimate 2018/19	Estimate 2019/20
City Manager	R 377 800 000	9.79%	R 335 000 000	R 848 000 000
Community and Social Development Services	R 92 007 000	2.38%	R 67 000 000	R 63 500 000
Community Safety	R 23 250 000	0.60%	R 20 000 000	R 45 000 000
Customer Relations Management	R 10 000 000	0.26%	R 3 000 000	R 2 000 000
Economic Development and Spatial Planning	R 96 514 650	2.50%	R 108 173 700	R 109 783 400
Environment and Agriculture Management	R 32 500 000	0.84%	R 51 000 000	R 62 500 000
Group Audit and Risk	R 13 000 000	0.34%	R 13 000 000	R 13 000 000
Group Financial Services	R 120 500 000	3.12%	R 55 000 000	R 22 000 000

Department	Budget 2017/18	%	Estimate 2018/19	Estimate 2019/20
Group Legal Services	R 100 000	0.00%	R 0	R 0
Group Property	R 5 200 000	0.13%	R 5 000 000	R 5 000 000
Group Human Capital	R 6 200 000	0.16%	R 8 000 000	R 0
Health	R 15 200 000	0.39%	R 32 000 000	R 39 936 000
Housing and Human Settlement	R 874 422 432	22.65%	R 1 025 508 909	R 920 000 000
Regional Operations and Coordination	R 5 000 000	0.13%	R 3 000 000	R 5 000 000
Roads and Transport	R 1 078 973 564	27.95%	R 861 983 455	R 967 786 000
<b>Shared Services</b>	<b>R 93 500 000</b>	<b>2.42%</b>	<b>R 103 000 000</b>	<b>R 118 000 000</b>
Group Information and Communication Technology	R 93 500 000		R 103 000 000	R 118 000 000
<b>Utility Services</b>	<b>R 1 016 116 394</b>	<b>26.32%</b>	<b>R 1 133 269 446</b>	<b>R 1 184 775 310</b>
Energy and Electricity	R 488 312 146		R 630 154 020	R 580 275 310
Water and Sanitation	R 527 804 248		R 503 115 426	R 604 500 000
<b>TOTAL CAPITAL BUDGET</b>	<b>R 3 860 284 040</b>	<b>100%</b>	<b>R 3 823 935 510</b>	<b>R 4 406 280 710</b>

The following graph illustrates the above table in terms of allocations per department:

Figure 7.5: Capital budget allocations per department



Some of the main projects and key focus areas of the budget and IDP to be addressed in 2017/18 financial year include amongst others:

#### Office of the City Manager

- Implementation of Tsosoloso programme – R20 million
- Construction of walkways in Mamelodi – R10 million
- Revitalisation of city's industrial and economic nodes (Rosslyn, Babelegi, Ekandustria, Ga-Rankuwa – R346 million

#### Community and Social Development

- Redevelopment of Caledonian – R32 million
- Upgrading of Refilwe Stadium – R15 million
- Upgrading of HM Pitjie Stadium – R1 million
- Social Development Centre in Hammanskraal – R11 million
- Social Development Centre in Winterveldt – R11 million
- Social Development Centre in Mabopane – R12 million

#### Community Safety

- Renovation and upgrading of facilities – R5 million
- Mamelodi Emergency Services Station – R2 million
- Purchasing of policing equipment – R13 million

#### Customer Relations Management

- SAP CRM contact centre optimization – R6,8 million

#### Economic Development and Spatial Planning

- Inner City Regeneration
  - Civic and Northern Gateway Precincts – R20,7 million
  - Roslyn Urban Realm upgrade and multi-modal interchange – R12 million
- Informal Trade Market (inner city) – R6,9 million
- Upgrading of the market trading system – R4 million
- Business Process Outsourcing Park (construction) – R50 million

#### Environment and Agriculture Management

- Provision of burial facilities – R5 million
- Provision of waste containers – R9 million
- Upgrade of access control at waste disposal sites – R5 million
- Upgrading of resorts and reserves of security infrastructure – R4,5 million
- Atmospheric pollution monitoring system – R3 million

#### Group Financial Services

- Implementation of mSCOA automation – R28 million
- Treasury management system – R6 million
- Reduction of water losses - R58 million
- Building and Equipment security at stores – R 10 million

#### Housing and Human Settlement

- Project Linked Housing - Water Provision – R270,2 million
- Sewerage - Low Cost Housing – R262,7 million
- Roads and Storm water - Low Cost Housing – R351,5 million
- Redevelopment of hostels (Saulsville) – R10 million
- Redevelopment of hostels (Mamelodi) – R10 million

#### Shared Services

- Credit Control Solution – R10 million
- Disaster Recovery System Storage – R10 million
- E-Initiative supporting the Smart City – R13 million
- Upgrade of IT networks – R15 million
- One Integrated Transaction Processing System – R20 million

#### Health

- Refurbishment of Rayton Clinic – R6,7 million
- Upgrading of clinic dispensaries – R5 million
- Rosslyn Clinic – R2 million
- New clinic – Lusaka – R1.5 million

#### Utility Services

- Reservoir Extensions - R87 million
- Replacement and upgrading: redundant bulk pipeline infrastructure – R22 million
- Refurbishment of water networks and backlog eradication – R52 million
- Replacement, upgrade, construct waste water treatment works facilities – R53 million
- Replacement of worn out network pipes – R102 million
- Formalisation of informal settlements – R83,3 million
- Water conservation and demand management – R80 million
- Replacement of sewers – R20 million
- Electricity for all – R134 million
- Strengthening of 11kV overhead and cable networks – R30 million
- Tshwane public lighting programme –R50 million
- Pre-paid electricity meters – R35 million
- New bulk electricity infrastructure – R120 million
- Electricity vending infrastructure – R35 million

### Transport

- Mabopane station modal interchange - R60 million
- Internal Roads: northern areas – R65,3 million
- BRT - Transport infrastructure – R669,2 million
- Automated face collection – R10 million
- Flooding backlogs: networks and drainage canals - R17,6 million
- Major storm water drainage systems – R7,2 million
- Menlyn Taxi interchange – R16 million
- Wonderboom intermodal facility – R122 million
- Denneboom intermodal facility – R42 million

## Capital Projects per Department

The following table presents the capital projects per department. In this table, the regional and ward allocation is indicated.

**Table 7.4: Capital projects per department**

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
City Manager	Implementation of Tsosoloso Programme	R 10 000 000	R 10 000 000	R 10 000 000	Tshwane Wide	Tshwane Wide
City Manager	(VPUU) Construction of walkways in Mamelodi East –CoT funding	R 10 000 000	R 10 000 000	R 0	10	Region 6
City Manager	(VPUU) Construction of Skills Centre Mamelodi East – CoT funding	R 0	R 0	R 10 000 000	10	Region 6
City Manager	Implementation of Tsosoloso Programme	R 20 000 000	R 30 000 000	R 45 000 000	Tshwane Wide	Tshwane Wide
City Manager	Revitalisation of City's industrial and economic nodes ( Rosslyn, Babelegi, Enkandustria, Garankuwa)	R 331 000 000	R 295 000 000	R 470 000 000	103,4,74	Region 1
City Manager	Revitalisation of City's industrial and economic nodes ( Rosslyn, Babelegi, Enkandustria, Garankuwa)	R 15 000 000	R 0	R 323 000 000	103,4,74	Region 1
<b>Total</b>		<b>R 376 000 000</b>	<b>R 335 000 000</b>	<b>R 848 000 000</b>		
Community and Social Development Services	Capital Movables	R 9 507 000	R 10 000 000	R 10 500 000	Tshwane Wide	Tshwane Wide
Community and Social Development Services	New Eersterust Library	R 0	R 0	R 10 000 000	13,14,49,95	Region 2
Community and Social Development Services	Upgrading Of Museums	R 0	R 0	R 5 000 000	Multi Wards	Region 3
Community and Social Development Services	Redevelopment of Caledonian	R 32 000 000	R 35 000 000	R 0	81	Region 3
Community and Social Development Services	Upgrading of HM Pitjie Stadium	R 1 000 000	R0	R0	6, 28, 38, 43, 67	Region 6
Community and Social Development Services	Capital Movables	R 200 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Community and Social Development Services	Upgrade Refilwe Stadium	R 15 000 000	R 20 000 000	R 18 000 000	99, 100	Region 5
Community and Social Development Services	Greening Sports fields	R 0	R 2 000 000	R 20 000 000	35	Region 1
Community and Social Development Services	Social Development center in Hammanskraal	R 11 000 000	R 0	R 0	49	Region 2
Community and Social	Social Development center in Winterveld	R 11 000 000	R 0	R 0	94	Region 1

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
Development Services						
Community and Social Development Services	Social Development center in Mabopane	R 12 000 000	R 0	R 0	21, 12, 20	Region 1
<b>Total</b>		<b>R 91 707 000</b>	<b>R 67 000 000</b>	<b>R 63 500 000</b>		
Community Safety	Renovation & Upgrading Of Facilities	R 5 000 000	R 2 000 000	R 2 000 000	100,104,105,43,50,53,57,58,60,70,82,83,92	Multi Region 2,3,4,5,6,7
Community Safety	Construction of Emergency Services Station - Mamelodi	R 2 000 000	R 5 000 000	R 30 000 000	28,6	Region 6
Community Safety	Capital Movables	R 250 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Community Safety	Disaster risk management tools and equipment (Emergency Services Tools and Equipment)	R 3 000 000	R 3 000 000	R 3 000 000	60	Region 3
Community Safety	Purchasing of policing equipment	R 13 000 000	R 10 000 000	R 10 000 000	58	Region 3
<b>Total</b>		<b>R 23 250 000</b>	<b>R 20 000 000</b>	<b>R 45 000 000</b>		
Customer Relations Management	Call centre furniture and equipment	R 1 550 000	R 0	R 1 000 000	57	Region 4
Customer Relations Management	Construction Centurion Call Centre Chill Room	R 500 000	R 0	R 0	57	Region 4
Customer Relations Management	Call Centre - It Equipment	R 1 150 000	R 0	R 1 000 000	57	Region 4
Customer Relations Management	SAP CRM Contact Centre optimization	R 6 800 000	R 3 000 000	R 0	57	Region 4
<b>Total</b>		<b>R 10 000 000</b>	<b>R 3 000 000</b>	<b>R 2 000 000</b>		
Economic Development and Spatial Planning	Inner City Regeneration	R 32 664 650	R 37 673 700	R 39 783 400		
Economic Development and Spatial Planning	Inner City Regeneration: Civic and Northern Gateway Precincts	R 20 664 650	R 17 673 700	R 9 783 400	58,59,60,80,81,92	Region 3
Economic Development and Spatial Planning	Rosslyn Urban Realm Upgrade and Multi Modal Interchange	R 12 000 000	R 20 000 000	R 30 000 000	37, 4, 90	Region 1
Economic Development and Spatial Planning	Upgrading And Extension Of Facilities	R 2 500 000	R 2 500 000		60	Region 3
Economic Development and Spatial Planning	Capital Movables	R 450 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Economic Development and Spatial Planning	Upgrading of the market trading system	R 4 000 000	R 5 000 000	R 3 000 000	60, 58	Region 3
Economic Development and Spatial Planning	Informal Trade Market(Inner City)	R 6 900 000	R 0	R 0	58	Region 3
Economic Development and Spatial Planning	Business Process Outsourcing Park	R 50 000 000	R 63 000 000	R 67 000 000	49	
Economic Development	Business Process Outsourcing Park - Construction	R 50 000 000	R 63 000 000	R 2 000 000	49	Region 2

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
and Spatial Planning						
Economic Development and Spatial Planning	Business Process Outsourcing Park - IT	R 0	R 0	R 65 000 000	49	Region 2
<b>Total</b>		<b>R 96 514 650</b>	<b>R 108 173 700</b>	<b>R 109 783 400</b>		
Environment and Agricultural Management	Atmospheric Pollution Monitoring Network	R 3 000 000	R 4 000 000	R 4 000 000	103,29,4,55	Multi Region 1,3,7
Environment and Agricultural Management	Furniture and equipment for overnight accommodation at Resorts	R 5 000 000	R 6 000 000	R 8 000 000	91, 63	Multi Region 3,6
Environment and Agricultural Management	New fork lift for Garankuwa Buy Back Centre (Recycling centre)	R 0	R 0	R 300 000	30	Region 1
Environment and Agricultural Management	Upgrade visitor infrastructure at Nature Reserves and Resorts	R 0	R 0	R 5 000 000	32,1,2,3,42,50,54,59, 44, 46, 64, 91, 65 & 79, 5	Multi Region 1,2,3,5,7
Environment and Agricultural Management	Development of waste transfer stations	R 1 000 000	R 10 000 000	R 10 000 000	Tshwane Wide	Tshwane Wide
Environment and Agricultural Management	Provision of burial facilities	R 5 000 000	R 6 500 000	R 15 000 000	Tshwane Wide	Tshwane Wide
Environment and Agricultural Management	Upgrading of Resorts and reserves of security infrastructure	R 4 500 000	R 7 000 000	R 9 000 000	59, 90, 63, 102, 91, 44, 32, 54, 50, 69	Multi Region 4,3
Environment and Agricultural Management	Provision of waste containers	R 9 000 000	R 12 000 000	R 1 200 000	Tshwane Wide	Tshwane Wide
Environment and Agricultural Management	Upgrade of access control at waste disposal sites	R 5 000 000	R 5 500 000	R 7 000 000	40, 102, 105	Multi Region 6,5,7
Environment and Agricultural Management	Extension of Ga-Rankuwa Cemetery	R 0	R 0	R 3 000 000	30,31,32,37,39,4	Region 1
<b>Total</b>		<b>R 32 500 000</b>	<b>R 51 000 000</b>	<b>R 62 500 000</b>		
Group Audit and Risk	Insurance replacements (CTMM Contribution)	R 8 000 000	R 8 000 000	R 8 000 000	Tshwane Wide	Tshwane Wide
Group Audit and Risk	Insurance replacements	R 5 000 000	R 5 000 000	R 5 000 000	Tshwane Wide	Tshwane Wide
<b>Total</b>		<b>R 13 000 000</b>	<b>R 13 000 000</b>	<b>R 13 000 000</b>		
Group Financial Services	Building and Equipment security at stores	R 10 000 000	R 10 000 000	R 10 000 000	Tshwane Wide	Tshwane Wide
Group Financial Services	Fuel Assets Underground Tanks	R 7 000 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Group Financial Services	Handheld terminal	R 5 000 000	R 5 000 000	R 1 000 000	Tshwane Wide	Tshwane Wide
Group Financial Services	mSCOA Automation	R 28 000 000	R 12 000 000		Tshwane Wide	Tshwane



Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
						Wide
Group Financial Services	Capital Movables	R 500 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Group Financial Services	Renovation of record management	R 5 000 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Group Financial Services	Renovation of tender advertisement	R 5 000 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Group Financial Services	Record management	R 2 000 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Group Financial Services	Renovation of cashiers	R 0	R 5 000 000	R 0	Tshwane Wide	Tshwane Wide
Group Financial Services	Renovation of cashiers	R 0	R 5 000 000	R 5 000 000	Tshwane Wide	Tshwane Wide
Group Financial Services	Treasury Management system	R 0	R 6 000 000	R 6 000 000	Tshwane Wide	Tshwane Wide
Group Financial Services	Turnaround of Municipal Water Services – Reduction of water losses	R 58 000 000	R 12 000 000	R 0	Tshwane Wide	Region 5
<b>Total</b>		<b>R 120 500 000</b>	<b>R 55 000 000</b>	<b>R 22 000 000</b>		
Group Legal Services	Capital Movables	R 100 000	R 0	R 0	Tshwane Wide	Tshwane Wide
<b>Total</b>		<b>R 100 000</b>	<b>R 0</b>	<b>R 0</b>		
Shared Services	Upgrade Of IT Networks	R 15 000 000	R 25 000 000	R 25 000 000	Tshwane Wide	Tshwane Wide
Shared Services	One Integrated Transaction Processing System	R 20 000 000	R 26 000 000	R 25 000 000	Tshwane Wide	Tshwane Wide
Shared Services	Computer Equipment Deployment - End user computer hardware equipment	R 10 500 000	R 11 000 000	R 15 000 000	Tshwane Wide	Tshwane Wide
Shared Services	Implementation Of Storage Area Network	R 15 000 000	R 20 000 000	R 25 000 000	Tshwane Wide	Tshwane Wide
Shared Services	E-Initiative Supporting the Smart City	R 13 000 000	R 11 000 000	R 13 000 000	Tshwane Wide	Tshwane Wide
Shared Services	Disaster Recovery System Storage	R 10 000 000	R 10 000 000	R 15 000 000	Tshwane Wide	Tshwane Wide
Shared Services	Credit Control Solution	R 10 000 000	R 0	R 0	Tshwane Wide	Tshwane Wide
<b>Total</b>		<b>R 93 500 000</b>	<b>R 103 000 000</b>	<b>R 118 000 000</b>		
Group Human Capital	Tshwane Leadership and Management Academy	R 6 000 000	R 8 000 000	R 0	Tshwane Wide	Tshwane Wide
Group Human Capital	Capital Movables	R 200 000	R 0	R 0	Tshwane Wide	Tshwane Wide
<b>Total</b>		<b>R 6 200 000</b>	<b>R 8 000 000</b>	<b>R 0</b>		
Group Property	Replacement/Modernization of all the Lifts within various Council	R 5 000 000	R 5 000 000	R 5 000 000	100,101,102,4,49,58,65,	Tshwane

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
Management	Buildings				67,7,96	Wide
Group Property Management	Capital Movables	R 200 000	R 0	R 0	Tshwane Wide	Tshwane Wide
<b>Total</b>		<b>R 5 200 000</b>	<b>R 5 000 000</b>	<b>R 5 000 000</b>		
Health	Rosslyn Clinic	R 2 000 000	R 0	R 0	32,37,4,90,96,98	Region 1
Health	Upgrade Workflow System For Health-Erp	R 0	R 7 000 000	R 7 000 000	Tshwane Wide	Tshwane Wide
Health	Upgrading Of Clinic Dispensaries	R 5 000 000	R 5 000 000	R 8 000 000	18, 40	Region 6
Health	Capital Movables	R 300 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Health	New Clinic Lusaka	R 1 500 000	R 1 500 000	R 2 600 000	100,15,40,97	Region 6
Health	New Clinic Soshanguve South	R 0	R 0	R 1 500 000	32,37,39,89,90	Region 1
Health	Mobile X-Ray Unit	R 0	R 0	R 6 000 000	Tshwane Wide	Region 3
Health	Health Posts	R 0	R 0	R 14 836 000	17, 99, 16, 40	Region 5
Health	Refurbishment of Rayton Clinic	R 6 700 000	R 18 500 000	R 0	100	Region 5
<b>Total</b>		<b>R 15 500 000</b>	<b>R 32 000 000</b>	<b>R 39 936 000</b>		
Housing and Human Settlement	Project Linked Housing - Water Provision	R 270 191 297	R 294 500 000	R 199 500 000		
Housing and Human Settlement	(710863) Chantel x39	R 4 691 297	R 0	R 0	4	Region 1
Housing and Human Settlement	Chantelle ext. 39 - Water reticulation	R 0	R 20 000 000	R 0	4	Region 1
Housing and Human Settlement	Soshanguve South ext. 24 - (water)	R 0	R 20 000 000	R 22 000 000	89	Region 1
Housing and Human Settlement	Gatsebe - Water reticulation	R 0	R 10 000 000	R 20 000 000	22	Region 1
Housing and Human Settlement	Hammanskraal ext. 10	R 25 000 000	R 15 000 000	R 20 000 000	73	Region 2
Housing and Human Settlement	Winterveld reservoir	R 0	R 0	R 50 000 000	19,24,9	Region 1
Housing and Human Settlement	Booyens Ext - Bulk water	R 17 000 000	R 20 000 000	R 25 000 000	55	Region 3
Housing and Human Settlement	(710863) Fortwest 4&5	R 0	R 10 000 000	R 0	7	Region 3
Housing and Human Settlement	(710863) Fortwest 4&5 - Bulk water reservoir	R 0	R 35 000 000	R 0	7	Region 3
Housing and Human Settlement	(710863) Garsfontein	R 0	R 17 500 000	R 0	44,45,46	Region 6
Housing and Human Settlement	(710863) Kopanong phase 2	R 0	R 15 000 000	R 0	20	Region 1

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
Housing and Human Settlement	(710863) Lotus Gardens	R 0	R 20 000 000	R 0	7	Region 3
Housing and Human Settlement	(710863) Mabopane Ext 1	R 26 000 000	R 10 000 000	R 0	22	Region 1
Housing and Human Settlement	(710863) Rama City	R 21 000 000	R 15 000 000	R 0	32,4	Region 1
Housing and Human Settlement	(710863) Refilwe Manor 10ml reservoir	R 42 000 000	R 15 000 000	R 0	100	Region 5
Housing and Human Settlement	(710863) Soutpan (phase 2)	R 0	R 15 000 000	R 7 500 000	13	Region 2
Housing and Human Settlement	(710863) Winterveld	R 25 000 000	R 20 000 000	R 25 000 000	19, 24	Region 1
Housing and Human Settlement	(710863) Refilwe Manor Pump stations	R 22 000 000	R 8 000 000	R 0	99,100	Region 5
Housing and Human Settlement	(710863) Zithobeni 8&9	R 5 500 000	R 15 000 000	R 15 000 000	102	Region 7
Housing and Human Settlement	(710863) Zithobeni 8&9 - Bulk water main line	R 15 000 000	R 0	R 0	102	Region 7
Housing and Human Settlement	(710863) Zithobeni Heights Phase 1	R 42 000 000	R 0	R 0	102	Region 7
Housing and Human Settlement	(710863) Zithobeni Heights Phase 2	R 0	R 14 000 000	R 15 000 000	102	Region 7
Housing and Human Settlement	Temba View X1 - Bulk line connection	R 25 000 000	R 0	R 0	49,73,74	Region 2
Housing and Human Settlement	Sewerage - Low Cost Housing	R 262 675 471	R 315 500 000	R 266 500 000		
Housing and Human Settlement	(710864) Chantelle x39 Bulk	R 7 175 471	R 0	R 0	4	Region 1
Housing and Human Settlement	Booyens Ext - Bulk Sewer	R 17 000 000	R 20 000 000	R 25 000 000	55	Region 3
Housing and Human Settlement	(710864) Fortwest 4&5	R 0	R 10 000 000	R 20 000 000	7	Region 3
Housing and Human Settlement	(710864) Garsfontein	R 0	R 17 500 000	R 0	44,45,46,91	Region 6
Housing and Human Settlement	(710864) Kudube 9 - Pump Stations	R 30 000 000	R 30 000 000	R 0	74	Region 2
Housing and Human Settlement	(710864) Kopanong Ext 1 Phase 2	R 0	R 15 000 000	R 15 000 000	20	Region 1
Housing and Human Settlement	(710864) Kudube 9 - Bulk Sewer line	R 40 000 000	R 0	R 0	74	Region 2
Housing and Human Settlement	(710864) Lotus Gardens	R 0	R 15 000 000	R 20 000 000	7	Region 3
Housing and Human Settlement	(710864) Mabopane Ext 1	R 26 000 000	R 10 000 000	R 0	7	Region 3

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
Housing and Human Settlement	(710864) Rama City	R 21 000 000	R 10 000 000	R 0	32	Region 1
Housing and Human Settlement	(710864) Soutpan (phase 2)	R 0	R 15 000 000	R 7 500 000	13	Region 2
Housing and Human Settlement	(710864) Winterveld bulk sewer	R 66 000 000	R 40 000 000	R 40 000 000	100	Region 5
Housing and Human Settlement	(710864) Winterveld sewer reticulation	R 25 000 000	R 23 000 000	R 27 000 000	13,14	Region 1
Housing and Human Settlement	Chantelle ext. 39 - sewer reticulation	R 0	R 20 000 000	R 0	4	Region 1
Housing and Human Settlement	Soshanguve South ext. 24 (Sewer)	R 0	R 20 000 000	R 22 000 000	89,90	Region 1
Housing and Human Settlement	Gatsebe - Sewer reticulation	R 0	R 10 000 000	R 20 000 000	22	Region 1
Housing and Human Settlement	Hammanskraal ext. 10	R 25 000 000	R 15 000 000	R 20 000 000	73	Region 2
Housing and Human Settlement	(710864) Zithobeni 8&9	R 5 500 000	R 20 000 000	R 30 000 000	102	Region 7
Housing and Human Settlement	(710864) Zithobeni Heights Phase 2	R 0	R 25 000 000	R 20 000 000	102,105	Region 7
Housing and Human Settlement	Roads & Storm water - Low Cost Housing	R 17 500 000	R 0	R 0		
Housing and Human Settlement	Chantelle ext. 39	R 17 500 000	R 17 500 000	R 17 500 000	4	Region 1
Housing and Human Settlement	Roads & Storm water - Low Cost Housing	R 304 055 664	R 358 000 000	R 404 000 000		
Housing and Human Settlement	Kudube 9	R 0	R 25 000 000	R 30 000 000	74	Region 2
Housing and Human Settlement	Mabopane Ext 1	R 0	R 0	R 20 000 000	22	Region 1
Housing and Human Settlement	Refilwe Manor Ext 9	R 0	R 25 000 000	R 32 000 000	100	Region 5
Housing and Human Settlement	Winterveld	R 43 000 000	R 34 000 000	R 40 000 000	19,24	Region 1
Housing and Human Settlement	Fortwest 4&5	R 40 000 000	R 45 000 000	R 55 000 000	7	Region 3
Housing and Human Settlement	Soshanguve X12	R 26 422 432	R 30 000 000	R 20 000 000	90	Region 1
Housing and Human Settlement	Soshanguve X13	R 32 000 000	R 35 000 000	R 20 000 000	90	Region 1
Housing and Human Settlement	Soshanguve X5	R 72 000 000	R 35 000 000	R 0	90	Region 1
Housing and Human Settlement	Olievenhoutbosch x60	R 30 000 000	R 0	R 0	7	Region 3

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
Settlement						
Housing and Human Settlement	Thorntreeview	R 50 000 000	R 50 000 000	R 50 000 000	77	Region 4
Housing and Human Settlement	Chantelle ext. 39	R 10 633 232	R 0	R 0	4	Region 1
Housing and Human Settlement	Timberland	R 0	R 0	R 0	90	Region 1
Housing and Human Settlement	Zithobeni Ext 8&9 roads	R 0	R 20 000 000	R 20 000 000	90	Region 1
Housing and Human Settlement	Zithobeni Heights roads	R 0	R 25 000 000	R 25 000 000	90	Region 1
Housing and Human Settlement	Zithobeni Hostel	R 0	R 0	R 25 000 000	102	Region 7
Housing and Human Settlement	Soshanguve South ext. 24 (Roads)	R 0	R 19 000 000	R 26 000 000	89	Region 1
Housing and Human Settlement	Rama City (Roads)	R 0	R 15 000 000	R 41 000 000	32	Region 1
Housing and Human Settlement	Townlands - Marabastad	R 0	R 18 508 909	R 0	58,60	Region 3
Housing and Human Settlement	Redevelopment Of Hostels: Saulsville(Phase 3b and 4a)	R 10 000 000	R 14 000 000	R 25 000 000	7	Region 3
Housing and Human Settlement	Redevelopment Of Hostels: Mamelodi	R 10 000 000	R 25 000 000	R 25 000 000	38	Region 6
<b>Total</b>		<b>R 874 422 432</b>	<b>R 1 025 508 909</b>	<b>R 920 000 000</b>		
Regional Operations and Coordination	JoJo Tanks - Re Aga Tshwane	R 5 000 000	R 3 000 000	R 5 000 000	Tshwane Wide	Tshwane Wide
Regional Operations and Coordination	Capital Movable	R 1 800 000	R 0	R 0	Tshwane Wide	Tshwane Wide
<b>Total</b>		<b>R 6 800 000</b>	<b>R 3 000 000</b>	<b>R 5 000 000</b>		
Roads and Transport	Contributions: Services For Township Development	R 19 412 496	R 0	R 0	61, 70, 64, 69, 78, 77, 48	Region 4
Roads and Transport	Essential/Unforeseen Storm water Drainage Problems	R 0	R 0	R 14 920 000	Tshwane Wide	Tshwane Wide
Roads and Transport	Concrete Canal: Sam Malema Road, Winterveld	R 1 591 547	R 5 000 000	R 5 000 000	24, 19, 9, 29	Region 1
Roads and Transport	Major Storm water System, Mamelodi X 8	R 0	R 0	R 10 000 000	99, 97, 10, 40	Region 5
Roads and Transport	Major Storm water Systems: Klip/Kruisfontein	R 1 200 000	R 10 000 000	R 10 000 000	90	Region 1
Roads and Transport	Traffic Calming And Pedestrian Safety For Tshwane	R 6 000 000	R 5 000 000	R 5 000 000	Tshwane Wide	Tshwane Wide
Roads and Transport	Mateteng Main Transport Route, Stinkwater	R 0	R 200 000	R 0	13, 95	Region 2
Roads and Transport	Shova Kalula Bicycle Project	R 9 000 000	R 10 000 000	R 10 000 000	19, 12, 9, 29, 24	Region 1
Roads and Transport	Mabopane Station Modal Interchange	R 60 000 000	R 22 500 000	R 0	9, 12, 29, 33, 26, 27,	Region 1

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
					94,11, 19, 20, 21,34, 96	
Roads and Transport	Block W - Storm water Drainage	R 20 000 000	R 20 000 000	R 15 000 000		
Roads and Transport	(711164) Block W - Storm water Drainage (Soshanguve): Phase 1	R 20 000 000	R 10 000 000	R 0	27	Region 1
Roads and Transport	(711164) Block W - Storm water Drainage (Soshanguve): Phase 2	R 0	R 10 000 000	R 15 000 000	25	Region 1
Roads and Transport	Storm water Drainage Mahube Valley	R 1 000 000	R 0	R 12 000 000	16,17,40,99	Region 6
Roads and Transport	Major S/ Water Drainage System: Matengteng	R 0	R 5 000 000	R 0	13, 95	Region 2
Roads and Transport	Hartebeest Spruit: Canal Upgrading	R 1 500 000	R 2 500 000	R 0	82	Region 3
Roads and Transport	Montana Spruit: Channel Improvements	R 6 000 000	R 6 000 000	R 8 000 000	96, 5	Region 2
Roads and Transport	Major Storm water Drainage System: Majaneng	R 6 000 000	R 10 000 000	R 10 000 000	76, 75	Region 2
Roads and Transport	Traffic Lights/Traffic Signal System	R 1 000 000	R 5 000 000	R 5 000 000	3, 4, 11, 40, 42, 45, 51, 55, 57, 6, 69, 70,	Tshwane Wide
Roads and Transport	Internal Roads: Northern Areas	R 52 004 323	R 27 125 225	R 0	Multi Wards	Region 1
Roads and Transport	Internal Roads: Northern Areas	R 13 275 358	R 33 673 000	R 30 000 000	Multi Wards	Region 1
Roads and Transport	Separation: Airside/Landside Movement - Legal Compliance	R 3 000 000	R 200 000	R 200 000	50	Region 2
Roads and Transport	Flooding Backlogs: Stinkwater & New Eersterust Area	R 0	R 10 000 000	R 10 000 000	13,14,95	Region 2
Roads and Transport	Flooding Backlogs: Sosh & Winterveld Area	R 45 500 000	R 45 000 000	R 20 000 000		
Roads and Transport	Soshanguve Block FF East Area 1	R 10 000 000	R 15 000 000	R 0	26	Region 1
Roads and Transport	Soshanguve Block FF East Area 2	R 10 000 000	R 15 000 000	R 10 000 000	94, 29, 26	Region 1
Roads and Transport	Soshanguve Block GG Central (R)	R 22 400 000	R 0	R 0	94	Region 1
Roads and Transport	Soshanguve Block L	R 2 100 000	R 15 000 000	R 10 000 000	35, 36, 34	Region 1
Roads and Transport	Soshanguve Block LL South (O)	R 1 000 000	R 0	R 0	11, 29	Region 1
Roads and Transport	Flooding Backlogs: Sosh & Winterveld Area	R 0	R 0	R 5 000 000	29	Region 1
Roads and Transport	Flooding Backlogs: Mabopane Area	R 500 000	R 15 000 000	R 1 500 000	12,21,9	Region 1
Roads and Transport	Flooding Backlogs: Mamelodi, Eersterust	R 4 000 000	R 10 000 000	R 52 880 000		
Roads and Transport	(712223) Flooding Backlogs: Mamelodi, Eersterust & Pta Eastern Area ( <b>Extension</b> )	R 0	R 0	R 12 000 000	15,16	Region 6
Roads and Transport	(712223) Flooding Backlogs: Mamelodi, Eersterust & Pta Eastern Area: Mamelodi Extension 2	R 2 000 000	R 10 000 000	R 12 000 000	15,18	Region 6
Roads and Transport	(712223) Flooding Backlogs: Mamelodi, Eersterust & Pta Eastern Area: Mamelodi Extension 4	R 1 000 000	R 0	R 13 880 000	15, 16	Region 6
Roads and Transport	(712223) Flooding Backlogs: Mamelodi, Eersterust & Pta Eastern Area: Mamelodi Extension 5	R 1 000 000	R 0	R 15 000 000	16	Region 6
Roads and Transport	Traffic Flow Improvement at Intersections	R 4 000 000	R 10 000 000	R 10 000 000	Multi Wards	Region 6
Roads and Transport	Flooding backlog: Network 3, Kudube Unit 11	R 6 000 000	R 8 000 000	R 4 000 000	75	Region 2
Roads and Transport	Flooding backlog: Network 2F, Kudube Unit 6	R 8 000 000	R 6 000 000	R 2 000 000	75, 8	Region 2

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
Roads and Transport	Flooding backlog: Matengteng	R 15 000 000	R 15 000 000	R 15 000 000	13,95	Region 2
Roads and Transport	Flooding backlog: Kudube Unit 7	R 8 000 000	R 4 000 000	R 1 000 000	75, 8, 74	Region 2
Roads and Transport	Flooding backlog: Atteridgeville	R 15 000 000	R 10 000 000	R 10 000 000	3,48,51,62,63,68,7,71,72	Region 3
Roads and Transport	Flooding Backlogs: Soshanguve South	R 3 600 000	R 36 000 000	R 36 000 000		
Roads and Transport	(712513) Flooding Backlogs: Soshanguve South (& Akasia Area): Soshanguve Block TT	R 1 200 000	R 12 000 000	R 12 000 000	89	Region 1
Roads and Transport	(712513) Flooding Backlogs: Soshanguve South (& Akasia Area): Soshanguve Block WW	R 1 200 000	R 12 000 000	R 12 000 000	89	Region 1
Roads and Transport	(712513) Flooding Backlogs: Soshanguve South (& Akasia Area): Soshanguve South Extension 1	R 1 200 000	R 12 000 000	R 12 000 000	39	Region 1
Roads and Transport	Flooding backlog: Network 2B, Ramotse	R 0	R 0	R 100 000	49,73,74,75	Region 2
Roads and Transport	Flooding backlog: Network 2D, New Eersterust x 2	R 10 000 000	R 15 000 000	R 15 000 000	14, 95	Region 2
Roads and Transport	Flooding backlog: Drainage canals along Hans Strydom Dr, Mamelodi x 4 and 5	R 2 000 000	R 0	R 10 000 000	15,16,17,40,99	Multi Region 5,6
Roads and Transport	Flooding backlog: Network 1A, 1C & 1F, Ramotse	R 0	R 0	R 100 000	73,74	Region 2
Roads and Transport	Collector Road Backlogs: Mamelodi	R 200 000	R 200 000	R 200 000	18,23,28,38,40,43,6,67,86,93	Region 6
Roads and Transport	Collector Road Backlogs: Atteridgeville	R 500 000	R 0	R 0	7,3	Region 3
Roads and Transport	Flooding backlog: Network 3A, Kudube Unit 9	R 8 000 000	R 8 000 000	R 4 000 000	74,75	Region 2
Roads and Transport	Giant Stadium: Buitekant Street	R 1 500 000	R 15 000 000	R 15 000 000	29,33, 34, 35, 20, 12	Region 1
Roads and Transport	CBD and surrounding areas (BRT) -(Transport Infrastructure)	R 669 189 840	R 343 595 172	R 426 086 000		
Roads and Transport	Buses	R 0	R 0	R 218 550 000	58,59,60,80,81,92	Region 3
Roads and Transport	(712591) BRT Line 2C - Watloo Rd (btw Simon Vermooten & Denneboom Station)	R 24 525 240	R 0	R 0	86, 43, 38	Region 6
Roads and Transport	(712591) BRT Line 2C-Lynnwood Rd (btw January Masilela & Simon Vermooten)	R 51 049 160	R 99 981 840	R 0	44,46,85	Region 6
Roads and Transport	(712591) Denneboom Intermodal facility	R 42 180 000	R 0	R 0	43, 38, 86, 67, 28, 41	Region 6
Roads and Transport	(712591) Design, Supply, Installation, Commissioning and Operational Support Of Advanced Public Transport Management System (APTMS)	R 30 153 674	R 39 560 883	R 0	44,46,56,82,92	Multi Region 3,6
Roads and Transport	(712591) Line 2B: Atterbury Rd (btw Lois Avenue Rd to January Masilela Rd)	R 32 235 682	R 0	R 0	46, 44	Region 6
Roads and Transport	(712591) Line 2B: Atterbury Rd (btw Lynnwood Rd to Lois Avenue)	R 0	R 0	R 64 145 640	46,82	Multi Region 3,6
Roads and Transport	(712591) Line 2B: Lynnwood Rd (btw Univeristy Rd to Atterbury)	R 0	R 0	R 65 379 600	56,82	Region 3
Roads and Transport	(712591) NMT Line 2B (Hatfield to Menlyn)			R 11 000 000	65, 82, 46	Multi Region

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
						3,6
Roads and Transport	(712591) Planning and Design of BRT Projects	R 37 000 000	R 0	R 0	1,34,36,4,53,55,90,96,98	Multi Region 1,2,3
Roads and Transport	(712591) Railway Bridges (WP6)	R 61 318 554	R 34 297 954	R 0	1, 58, 53	Region 3
Roads and Transport	(712591) RJ to Akasia - Complementary	R 0	R 0	R 29 927 757	4,50,96,98	Multi Region 1,2
Roads and Transport	(712591) The Design, Supply, Installation, Operation and Maintenance of an automated fare Collection (AFC) System	R 32 474 674	R 26 703 614	R 0	44,46,56,82,92	Multi Region 3,6
Roads and Transport	(712591) Urban traffic control (UTC) system - A Re Yeng communication backbone and traffic signals	R 14 412 036	R 6 953 520	R 0	60	Region 3
Roads and Transport	(712591) Wonderboom Intermodal Facility	R 122 499 503	R 62 853 767	R 0	50	Region 2
Roads and Transport	Atteridgeville Taxi Interchange	R 48 705 739	R 0	R 0	62, 72	Region 3
Roads and Transport	Line 3: CBD to Atteridgeville	R 60 710 202	R 51 710 202	R 37 083 003	3,51,58,60,61,62,72	Multi Region 3,4
Roads and Transport	Menlyn Taxi Interchange	R 16 000 000	R 0	R 0	42,44,46,82	Region 6
Roads and Transport	Refurbishment and Upgrading of TBS Depots	R 0	R 21 533 392	R 0	60	Region 3
Roads and Transport	Taxi Industry Compensation	R 95 925 376		R 0	44,46,56,82,92	Multi Region 3,6
Roads and Transport	Upgrading of roads and appurtenant storm water systems in Soshanguve	R 1 500 000	R 15 000 000	R 15 000 000	29, 33	Region 1
Roads and Transport	Upgrading of Mabopane Roads (red soils)	R 1 000 000	R 15 000 000	R 15 000 000	12,19,20,21,22,29,35,9	Region 1
Roads and Transport	Upgrading of Sibande Street, Mamelodi	R 1 500 000	R 15 000 000	R 15 000 000	15,18,23,28,6,93	Region 6
Roads and Transport	Capital Movables	R 500 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Roads and Transport	Maintenance and replacement of all runway and taxiway lights, apron lights, security and lightning system	R 0		R 14 800 000	50	Region 2
Roads and Transport	Main terminal building carousel and mechanical baggage handling equipment	R 2 000 000	R 0	R 10 000 000	5,50,96	Region 2
Roads and Transport	Upgrading of Road from gravel to tar in Zithobeni Ward 102	R 5 000 000	R 12 000 000	R 10 000 000	102	Region 7
Roads and Transport	Upgrading of Road from gravel to tar in Ekangala (previously Ward 11 & 12) - Ward 103 & 104	R 10 000 000	R 12 000 000	R 10 000 000	103, 104, 105	Region 7
Roads and Transport	Upgrading of Road from gravel to tar in Ekangala	R 10 000 000	R 12 000 000	R 10 000 000	103, 104, 105	Region 7
Roads and Transport	Upgrading of roads and storm water systems in Refilwe	R 2 600 000	R 0	R 30 000 000	100	Region 5
Roads and Transport	Upgrading of roads and storm water systems in Rayton	R 1 300 000	R 0	R 10 000 000	99, 100	Region 5
Roads and Transport	Upgrading of roads and storm water systems in Cullinan	R 2 600 000	R 0	R 30 000 000	100	Region 5



Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
Roads and Transport	Improvement of dirt road leading to Clover hill club, Bronkhorstspuit dam	R 0	R 0	R 15 000 000	102	Region 7
Roads and Transport	Security access with CCTV and upgraded control room	R 1 000 000	R 0	R 0	50	Region 2
Roads and Transport	Elevator for main terminal building	R 3 000 000	R 2 500 000	R 0	50	Region 2
Roads and Transport	Fire sprinklers and smoke detectors - Main terminal building	R 1 000 000	R 0	R 0	50	Region 2
Roads and Transport	Construction of new water and sewage system.	R 10 000 000	R 0	R 10 000 000	5,50,96	Region 2
Roads and Transport	Replacement and upgrade of fire hydrants and equipment	R 1 000 000	R 5 800 000	R 0	50	Region 2
Roads and Transport	Storage facility for rescue and firefighting foam and related equipment	R 750 000	R 7 000 000	R 0	5,50,96	Region 2
Roads and Transport	Carports and electronic parking payment equipment	R 2 000 000	R 0	R 0	5,50,96	Region 2
Roads and Transport	Arch metal detector and scanners to scan passengers, luggage and baggage	R 2 000 000	R 0	R 0	5,50,96	Region 2
Roads and Transport	Firearm safe for airport visitors	R 50 000	R 0	R 0	5,50,96	Region 2
Roads and Transport	Installation of biometric security system	R 1 450 000	R 0	R 0	50, 5, 96	Region 2
Roads and Transport	Installation of temporary office structures (SARS, Immigration, Metro police, SAPS, Security Service Provider)	R 3 000 000	R 0	R 0	5,50,96	Region 2
Roads and Transport	Construction of a separate entrance for General Aviation passengers	R 1 500 000			5,50,96	Region 2
Roads and Transport	Public Parking paved with CCTV coverage, carports and access control	R 1 500 000	R 0	R 0	50	Region 2
Roads and Transport	Upgrade of Rescue and Firefighting centre with additional office space	R 750 000	R 0	R 0	50	Region 2
Roads and Transport	Automated Fare Collection (AFC-TBS)	R 10 000 000	R 52 690 058	R 0	58	Region 3
<b>Total</b>		<b>R 1 078 973 564</b>	<b>R 861 983 455</b>	<b>R 967 786 000</b>		
Utility Services	Upgrading/ Strengthening of Existing Network Schemes	R 5 000 000	R 0	R 0	Tshwane Wide	
	710005 (016) Upgrading/Strengthening of Existing Network Scheme - East	R 2 000 000	R 0	R 0	10,100,101,15,16,17,18,23,28,38,40,41,43,44,45,46,47,6,67,79,83,84,85,86,87,91,93,97,99	Multi Region 3,4,5,6
	710005 (016) Upgrading/Strengthening of Existing Network Scheme - North	R 2 000 000	R 0	R 0	11,12,13,14,19,2,20,21,22,24,25,26,27,29,30,31,32,33,34,35,36,37,39,4,49,5,50,74,75,76,8,87,88,89,9,90,94,95,96,98	Multi Region 1,2,5
	710005 (016) Upgrading/Strengthening of Existing Network Scheme - West	R 1 000 000	R 0	R 0	1,3,51,53,54,55,58,59,60,61,62,63,68,7,72	Multi Region 3,4,5,6
Utility Services	Payments to Townships for Reticulated Towns	R 4 000 000	R 5 000 000	R 5 000 000	Tshwane Wide	Tshwane Wide
Utility Services	Dangerous and obsolete switchgear	R 5 000 000	R 0	R 0	Tshwane Wide	Tshwane

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
						Wide
Utility Services	Low Voltage Network Within Towns	R 10 000 000	R 20 000 000	R 20 000 000	Tshwane Wide	Tshwane Wide
Utility Services	Electricity for All (USDG)	R 104 000 000	R 200 000 000	R 245 000 000		
	710178 (005) Electricity for All - Region 1	R 53 750 000	R 28 571 428	R 35 000 000	37	Region 1
	710178 (005) Electricity for All - Region 2	R 0	R 28 571 428	R 35 000 000	13	Region 2
	710178 (005) Electricity for All - Region 3	R 20 250 000	R 28 571 428	R 35 000 000	7, 55, 3	Region 3
	710178 (005) Electricity for All - Region 4	R 0	R 28 571 428	R 35 000 000	77	Region 4
	710178 (005) Electricity for All - Region 5	R 0	R 28 571 428	R 35 000 000	100,99	Region 5
	710178 (005) Electricity for All - Region 6	R 30 000 000	R 28 571 430	R 35 000 000	40	Region 6
	710178 (005) Electricity for All - Region 7	R 0	R 28 571 430	R 35 000 000	102	Region 7
Utility Services	Electricity for All (INEP)	R 30 000 000	R 40 000 000	R 40 000 000		
	710178 (006) Electricity for All - Region 1	R 30 000 000	R 5 714 285	R 5 714 285	37	Region 1
	710178 (006) Electricity for All - Region 2	R 0	R 5 714 285	R 5 714 285	13	Region 2
	710178 (006) Electricity for All - Region 3	R 0	R 5 714 285	R 5 714 285	7, 48	Region 3
	710178 (006) Electricity for All - Region 4	R 0	R 5 714 285	R 5 714 285	77	Region 4
	710178 (006) Electricity for All - Region 5	R 0	R 5 714 285	R 5 714 285	100, 40	Region 5
	710178 (006) Electricity for All - Region 6	R 0	R 5 714 285	R 5 714 285	40	Region 6
	710178 (006) Electricity for All - Region 7	R 0	R 5 714 290	R 5 714 290	102	Region 7
Utility Services	Electricity for All (Borrowings)	R 0	R 45 000 000	R 0		
	710178 (015) Electricity for All - Region 1	R 0	R 6 428 571	R 0	37	Region 1
	710178 (015) Electricity for All - Region 2	R 0	R 6 428 571	R 0	13	Region 2
	710178 (015) Electricity for All - Region 3	R 0	R 6 428 571	R 0	55	Region 3
	710178 (015) Electricity for All - Region 4	R 0	R 6 428 571	R 0	77	Region 4
	710178 (015) Electricity for All - Region 5	R 0	R 6 428 572	R 0	100, 99	Region 5
	710178 (015) Electricity for All - Region 6	R 0	R 6 428 572	R 0	40	Region 6
	710178 (015) Electricity for All - Region 7	R 0	R 6 428 572	R 0	102	Region 7
Utility Services	Strengthening 11kV Cable network	R 15 000 000	R 0	R 0	56	Region 3
Utility Services	Communication Upgrade: Optical Fibre net	R 10 000 000	R 0	R 3 616 413	58	Region 3
	Scada HMI (Capital Park)	R 10 000 000	R 0	R 3 616 413	58	Region 3
Utility Services	Strengthening 11kV Overhead Network	R 15 000 000	R 13 000 000	R 0	56	Region 3
Utility Services	Substations	R 5 000 000	R 0	R 0	42, 56, 82	Region 3
Utility Services	Tshwane Public Lighting Program	R 45 000 000	R 0	R 25 314 897		
Utility Services	USDG Funds: Region 1 (Public Lighting)	R 6 450 000	R 0	R 3 616 413	2,4,9,11,12,19,20,21,22,24,25,26,27,29,30,31,32	Region 1

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
					,33,34,35,36,37,3988,89,90,94,98	
Utility Services	USDG Funds: Region 2 (Public Lighting)	R 5 400 000	R 0	R 3 616 413	5,8,13,14,49,50,73,74,75,76,95,96	Region 2
Utility Services	USDG Funds: Region 3 (Public Lighting)	R 9 100 000	R 0	R 3 616 413	1,3,7,42,51,52,53,54,55,56,58,59,60,62,63,68,71,72,80,81,82,84,92	Region 3
Utility Services	USDG Funds: Region 4 (Public Lighting)	R 7 400 000	R 0	R 3 616 413	48,57,61,64,65,66,69,70,77,78,79,106,107	Region 4
Utility Services	USDG Funds: Region 5 (Public Lighting)	R 4 400 000	R 0	R 3 616 413	87,99,100	Region 5
Utility Services	USDG Funds: Region 6 (Public Lighting)	R 7 750 000	R 0	R 3 616 413	6,10,15,16,17,18,23,28,38,40,41,43,44,45,46,47,67,83,85,86,91,93,97,101	Region 6
Utility Services	USDG Funds: Region 7 (Public Lighting)	R 4 500 000	R 0	R 3 616 419	1.02103E+11	Region 7
Utility Services	Tshwane Public Lighting Program	R 5 000 000	R 0	R 13 018 690		
Utility Services	Public Lighting - Region 1	R 5 000 000			Tshwane Wide	Tshwane Wide
Utility Services	Mamelodi Extension 6 ERF 3404	R 0	R 0	R 13 018 690	6	Region 6
Utility Services	Pre-paid Electricity Meters	R 35 000 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Utility Services	Replacement of Obsolete And non-functional Equipment	R 0	R 1 500 000	R 0	Multi Wards	Region 1
Utility Services	New Bulk Infrastructure	R 120 000 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Utility Services	Bronkhorstspuit 132/11kv substation	R 5 000 000	R 0	R 0	102, 105	Region 7
Utility Services	Eldoraigne 132/11kv Substation	R 30 000 000	R 0	R 0	69	Region 4
Utility Services	Heatherley 132/11kv Substation	R 10 000 000			15,15&40	Region 6
Utility Services	Kentron 132/11kv Substation refurbishment	R 5 000 000	R 0	R 0	78, 57	Region 4
Utility Services	Mamelodi-3 132/11kv substation (2 x 40MVA Power Transformers)	R 20 000 000			10,16,17,40,97,99	Region 5
Utility Services	Monavoni 132/11KV Substation	R 20 000 000			70	Region 4
Utility Services	Soshanguve JJ 132/11KV Substation	R 25 000 000	R 0	R 0	9, 24, 11, 25, 94	Region 1
Utility Services	Soshanguve 132/11KV Substation	R 5 000 000	R 0	R 0	9, 24, 11, 25, 94	Region 1
Utility Services	New Bulk Infrastructure	R 0	R 132 000 000	R 70 000 000		
Utility Services	Bronkhorstspuit 132/11kv substation	R 0	R 25 000 000	R 30 000 000	102, 105	Region 7
Utility Services	Kentron 132/11kv Substation refurbishment	R 0	R 30 000 000	R 20 000 000	78, 57	Region 4
Utility Services	Monavoni 132/11KV Substation	R 0	R 45 000 000	R 20 000 000	70	Region 4
Utility Services	Soshanguve JJ 132/11KV Substation	R 0	R 32 000 000	R 0	9, 24, 11, 25, 94	Region 1
Utility Services	New Bulk Infrastructure (Borrowings)	R 0	R 36 775 020	R 53 325 310	2, 4, 10, 40, 50, 57	Tshwane

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
						Wide
Utility Services	New Connections	R 28 312 146	R 60 000 000	R 60 000 000	58	Region 3
Utility Services	Stand by quarters	R 0	R 8 000 000	R 5 000 000	4	Region 1
Utility Services	Energy Efficiency and Demand Side Management	R 0	R 15 000 000	R 0	Tshwane Wide	Tshwane Wide
Utility Services	Replacement of Obsolete Protection and Testing Instruments	R 2 000 000	R 0	R 0	105	Region 7
Utility Services	Electricity vending infrastructure	R 35 000 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Utility Services	Construction of Centralised Engineering Support	R 0	R 10 000 000	R 10 000 000	98	Region 1
Utility Services	Digital Trunked Radio Communication	R 15 000 000	R 18 000 000	R 20 000 000	City Wide	Multi Region 4,6
Utility Services	Infrastructure Fault Reporting and Dispatch	R 0	R 10 000 000	R 10 000 000	Tshwane Wide	Tshwane Wide
Utility Services	Rebuild IE lines Doornkloof AH, New Poles and MV	R 0	R 2 250 000	R 0	65, 57	Region 4
Utility Services	Rebuilt IW Irene Doornkloof AH	R 0	R 1 200 000	R 0	Tshwane Wide	Tshwane Wide
Utility Services	Replace dangerous and Obsolete ODS- Clubview	R 0	R 1 200 000	R 0	75, 65, 68	Region 4
Utility Services	Replace dangerous and Obsolete Tricon	R 0	R 7 200 000	R 0	48	Region 4
Utility Services	Replace dangerous meter boxes in PVR	R 0	R 1 500 000	R 0	79, 65	Region 4
Utility Services	Replace Vandalised low voltage networks- Laudium	R 0	R 851 000	R 0	3,51,61,62,72	Region 4
Utility Services	Replace Vandalised low voltage networks- Eldoraigne	R 0	R 976 000	R 0	70, 69	Region 4
Utility Services	Replace Vandalised low voltage networks- Erasmia	R 0	R 702 000	R 0	61	Region 4
Utility Services	Township Water Services Developers: Tshwane Contributions	R 10 000 000	R 10 000 000	R 20 000 000	87	Region 5
Utility Services	Lengthening Of Network & Supply Pipelines	R 3 000 000	R 20 000 000	R 20 000 000	29, 34, 35, 36, 96	Multi Region 1,2
Utility Services	Replacement of Worn Out Network Pipes	R 102 000 000	R 95 000 000	R 105 000 000	Tshwane Wide	Tshwane Wide
Utility Services	Replacement, Upgrade, Construct Waste Water Treatment Works Facilities	R 14 991 547	R 23 227 020	R 70 000 000	Tshwane Wide	Tshwane Wide
Utility Services	Replacement, Upgrade, Construct Waste Water Treatment Works Facilities	R 38 008 453	R 56 772 980	R 0		
Utility Services	(710411A2) Sunderland Ridges WWTW new 30ML BNR	R 0	R 13 000 000	R 0	Multi Wards	Region 4
Utility Services	(710411F1) Baviaanspoort waste water treatment works	R 30 000 000	R 23 772 980	R 0	Multi Wards	Region 6
Utility Services	(710411Z) Waste Water Treatment facilities upgrades Minor Capital Projects (City wide)	R 8 008 453	R 20 000 000	R 0	100,105	Multi Region 5,7
Utility Services	Refurbishment of Water Networks and Backlog Eradication	R 52 000 000	R 0	R 65 000 000		

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
Utility Services	(710878EK) Ekangala Block A sewer reticulation and toilets	R 0	R 0	R 35 000 000	103,104	Region 7
Utility Services	(710878O) Sewer reticulation New Eersterust Ext 1,2,3	R 0	R 0	R 30 000 000	95, 14	Region 2
Utility Services	(710878RM) Ramotse-Marokolong waterborne sanitation	R 2 000 000	R 0	R 0	49,73,74	Region 2
Utility Services	(710878T) Temba Water Purification Plant Extension	R 50 000 000	R 0	R 0	13,14,49,74,75,76,8,95	Region 2
Utility Services	Replacement & Upgrading: Redundant Bulk Pipeline Infrastructure	R 22 000 000	R 23 000 000	R 53 000 000		
Utility Services	(711335BR) Bronkhorstspuit bulk pipeline	R 5 000 000	R 0	R 0	100,102,103,104,105	Multi Region 5,6,7
Utility Services	(711335CP) Cathodic protection to all Steel pipes (City wide)	R 0	R 0	R 5 000 000	Tshwane Wide	Tshwane Wide
Utility Services	(711335GF) Replace feeder main from Garsfontein to Parkmore HL Reservoir	R 0	R 0	R 3 000 000	101,44,45,46,47,82,83,85,91	Region 6
Utility Services	(711335L) Soshanguve feeder main to Reservoirs DD and L upgrade and replace	R 0	R 0	R 25 000 000	13, 95, 14, 25, 27, 49, 88, 96, 33, 26, 94, 11	Region 1
Utility Services	(711335P) Heights Iscor Feeder	R 15 000 000	R 18 000 000	R 0	3,55,58,59,60,61	Region 3
Utility Services	(711335T) Bronkhorstspuit Reservoir zone eastern pipe reinforcement and PRV	R 2 000 000	R 5 000 000	R 20 000 000	102, 1015	Region 7
Utility Services	Replacement of Sewers	R 20 000 000	R 20 000 000	R 20 000 000	1,15,16,18,2,23,28,3,32, 38,4,40,41,42,43,50,52, 53,54,55,56,58,59,6,60, 67,82,84,87,92,93	Multi Region 1,2,3,5,6
Utility Services	Reduction Water Losses: Water Networks	R 0	R 8 000 000	R 10 000 000	Tshwane Wide	Tshwane Wide
Utility Services	Capital Movables	R 500 000	R 0	R 0	Tshwane Wide	Tshwane Wide
Utility Services	Morelettaspruit: Outfall sewer	R 0	R 3 000 000	R 0	101,45,47,83,85,91	Region 6
Utility Services	Reservoir Extensions	R 87 000 000	R 73 000 000	R 22 000 000		
Utility Services	(712534C) Doornkloof Reservoir	R 20 000 000	R 25 000 000	R 0	65,79,57	Region 4
Utility Services	(712534E) Installation of telemetry, bulk meters and control equipment at reservoirs (City Wide)	R 10 000 000	R 8 000 000	R 8 000 000	Tshwane Wide	Tshwane Wide
Utility Services	(712534G) Replace reservoir fencing (City Wide)	R 5 000 000	R 10 000 000	R 10 000 000	Tshwane Wide	Tshwane Wide
Utility Services	(712534H) Relining/upgrading reservoirs	R 0	R 0	R 4 000 000	53, 54, 52	Region 3
Utility Services	(712534J) New Klipgat Reservoir	R 12 000 000	R 0	R 0	22	Region 1
Utility Services	(712534S) New Parkmore LL Reservoir	R 25 000 000	R 15 000 000	R 0	44,45,46	Region 6
Utility Services	(712534T) Bronkhorstbaai: Refurbishment and upgrade of Water Purification Plant	R 15 000 000	R 15 000 000	R 0	102	Region 7

Department	Project Name	Budget 2017/18	Budget 2018/19	Budget 2019/20	Benefiting Wards	Region
Utility Services	Formalisation of Informal Settlements	R 83 304 248	R 66 115 426	R 112 500 000	Tshwane Wide	Tshwane Wide
Utility Services	Purification Plant Upgrades	R 15 000 000	R 20 000 000	R 5 000 000		
Utility Services	(711921E) Bronkhorstspuit Water Purification Plant Refurbishment	R 15 000 000	R 20 000 000	R 5 000 000	102, 105	Region 7
Utility Services	(712896) Water Conservation and Demand Management	R 80 000 000	R 85 000 000	R 87 000 000	Tshwane Wide	Tshwane Wide
Utility Services	Gatsebe- Sewer network and toilet top structures	R 0	R 0	R 15 000 000	22	Region 1
<b>Total</b>		<b>R 1 016 116 394</b>	<b>R 1 133 269 446</b>	<b>R 1 184 775 310</b>		
<b>Total Capital Budget</b>		<b>R 3 860 284 040</b>	<b>R 3 823 935 510</b>	<b>R 4 406 280 710</b>		

## Conclusion

This chapter gives expression to the key priorities contained in chapter 2, 6 and 7. It provide details relating to the capital investment framework of the City and ties in with the deliverables contained in Chapter 8 which provide information on the serviced delivery targets for the City over the 2017/21 period.

## 8. OUR IMPLEMENTATION APPROACH FOR 2017/21

For the city to achieve its desired strategic intent as captured in the vision for 2030, a clear pragmatic implementation plan needs to be put in place. This should allow for the development of a complete strategy for the long term and a strategic review is suggested to precede the development of medium plans such as the IDP as legislated.

It is for the reasons above that chapter 6 of this document proposed an organising framework that defines the transformation areas, goals, objectives and actions. The following approach should be adopted in the implementation of the Tshwane Development Strategy:

- The Tshwane Vision as well as the 5 strategic pillars forms a basis for tall planning and public investment within the City;
- All strategies, policies and interventions, policies and programmes need to be in line with the new vision;
- As stated above, the development of the IDP and its subsequent reviews need to be in line with the Tshwane Development Strategy which will be developed;
- The development of the performance plans at all levels need to be in line with the Tshwane Vision 2030;
- Through implementation, the City will identify key strategic/ flagship projects that will affect the implementation of the vision and these will be implemented through the planning and budgeting processes of the City;
- The implementation of all programmes and projects is the responsibility of all departments in the City however the Executive Mayor is the champion to whom all planning, budgeting and implementation should be accounted to.

### Performance Scorecard for the 2016/21 term of office

It is acknowledged that whilst there is a justified need to plan over a long time horizon, planning for the short term in order to lay the building blocks for the long term is crucial. Based on the strategic intent presented and discussed in chapter 2 of this document, the 2017/21 scorecard has been developed to bridge the gap between the Constitutional mandate and the articulated vision. The table below presents the 2017/21 scorecard based on which the City's performance will be measured.

Table 8.1 2017/18 – 2020/21 IDP scorecard

Key Performance Area	Indicator	Projected Baseline for 2016/17	2017/21 Target	Target 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Definition of the indicator
Basic Service provision	% of households in formal areas with access to water (metered connections)	81.97% (747 249 hh)	86.70% (43 050 new connections)	83.09% ( 10 150 new connections for the year)	84.24% (10 500 new connections for the year)	85.43% (10 900 new connections for the year)	86.70% (11 500 new connections for the year)	This indicator measures water meter connections installed, as applied for by consumers and the water meter connections installed to respond to new developments as well as addressing the backlogs.
	% formalised areas provided with weekly waste removal services	100%	100%	100%	100%	100%	100%	This indicator measures the waste removal services provided to households in townships as per City's Geographical Information System (GIS) listings.
	% of households with access to sanitation	79.14% (721 473hh)	81.44% (20 961 new connections)	79.56% (3761 new connections for the year)	80.16% (5500 new connections for the year)	80.79% (5 700 new connections for the year0	81.44 (6000 new connections for the year)	In the 2011–16 IDP, the City approved the minimum standard for access to sanitation to be UDS toilets and waterborne sanitation/ flush toilets as full access. This indicator measures both service levels. This excludes



Key Performance Area	Indicator	Projected Baseline for 2016/17	2017/21 Target	Target 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Definition of the indicator
								households with access to sanitation through VIP and chemical toilets as calculated by the 2011 Census.
	% of formal households with access to electricity	81.46% (742 557 hh)	85.86% (40 100 new connections new connections)	82.31% (7 800 new connections for the year)	83.40% (9 900 new connections for the year)	84.63% (11200 new connections for the year)	85.86% (11200 new connections for the year)	This indicator measures the access to electricity provided by the City through formal connections to households in formal settlements as per town planning definition.
Mobility optimisation	% of required municipal storm water drainage network provided	38.55% out of a Backlog calculated in 2015/16 to be 1780km	50.41% (211 km)	41.53% (53 km for the year)	44.23% (48 km for the year)	47.20% (53 km for the year)	50.41% (57 km for the year)	This indicator is derived from the total storm water backlog of 1780 km as determined in 2015/16
	% of roads provided to the required standard (km)	24.08% out of a Backlog calculated in 2015/16 to be 3036 km	30.11% (183 km)	25.40% (40 km for the year)	26.82% (43 km for the year)	28.30% (45 km for the year)	30.11% (55 km for the year)	This indicator is derived from the total roads backlog of 3036 km as determined in 2015/16
	% of completed TRT Bus way lanes constructed	40.20% (15.68km out of a target of 39km)	85.33% (17.6 km)	44.82% (1.8 km for the year)	54.56% (3.8 km for the year)	69.94% (6 km for the year)	85.33% (6 km for the year)	Bus lanes are physically segregated lanes that are exclusively for the use of Tshwane Rapid Transit vehicles.

Key Performance Area	Indicator	Projected Baseline for 2016/17	2017/21 Target	Target 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Definition of the indicator
								This indicator only measures the length of bus lanes to be constructed and completed. It measures the percentage of the completed of works.
Upgrading and development of informal settlements	% of informal settlements with access to rudimentary water services <sup>9</sup>	100% of 130 informal settlements	100 % of 134 informal settlements provided with rudimentary water services	100% of 134 informal settlements provided with rudimentary water services	100% of 134 informal settlements provided with rudimentary water services	100% of 134 informal settlements provided with rudimentary water services	100% of 134 informal settlements provided with rudimentary water services	The indicator measures the percentage of informal settlements receiving rudimentary water services through water tankers, Jojo tanks or communal standpipes.
	% informal settlements with access to rudimentary sanitation services <sup>10</sup>	100% of 54 informal settlements	100% of 76 informal settlements provided with rudimentary sanitation	100% of 76 informal settlements provided with rudimentary sanitation	100% of 76 informal settlements provided with rudimentary sanitation	100% of 76 informal settlements provided with rudimentary sanitation	100% of 76 informal settlements provided with rudimentary sanitation	This indicator measures only access to sanitation through chemical toilets in informal settlements provided and serviced by the City.

<sup>9</sup> The reported number of informal settlements with an access to water and a sanitation service is as per the manual count and survey that was done by the Housing and Human Settlements department in the City which. There are currently 173 informal settlements in the city.

<sup>10</sup> The reported number of informal settlements with an access to water and a sanitation service is as per the manual count and survey that was done by the Housing and Human Settlements department in the City which. There are currently 173 informal settlements in the city.

Key Performance Area	Indicator	Projected Baseline for 2016/17	2017/21 Target	Target 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Definition of the indicator
	Nr. of informal settlements formalised	5	32	7	8	8	9	This indicator measures the formalisation as per the City's formalisation programme.
Job Intensive economic growth	Nr of new income earning opportunities facilitated by the city	21 500	104 000	23 000 for the year	25 000 for the year	27 000 for the year	29 000 for the year	New work opportunities created through the implementation of capital and operational projects: These are work opportunities created through EPWP when City departments implement their capital or operational funded projects and a beneficiary is remunerated a minimum wage.
	Rand value investment attracted to the city (Annual)	R2.2 billion	R10.8 billion	R2.4 billion for the year	R2.6 billion for the year	R2.8 billion for the year	R3 billion for the year	This indicator reflects the Rand value of investment realised in terms of private sector investment in the city as a result of investment attraction initiatives by the City

Key Performance Area	Indicator	Projected Baseline for 2016/17	2017/21 Target	Target 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Definition of the indicator
								landing investments during a specific financial year resulting from investors/developers investing in Tshwane.
	Support through mentorship/training to the Tshepo 10 000 co-operative	245	1097	257 for the year	270 for the year	280 for the year	290 for the year	This indicator measures the support provided to the Tshepo 10 000 cooperatives through training and mentorship programmes.
Health	% CoT Clinics providing mother and child health services	100%	100%	100%	100%	100%	100%	<p>The indicator is made up of achievements against Health facilities providing the following –</p> <ul style="list-style-type: none"> <li>• Percentage of PHC fixed clinics providing immunisation coverage for children under the age of 1</li> <li>• Percentage of PHC fixed clinics implementing PMTCT programme</li> <li>• Percentage of PHC fixed clinics</li> </ul>

Key Performance Area	Indicator	Projected Baseline for 2016/17	2017/21 Target	Target 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Definition of the indicator
								providing HIV testing facilities for pregnant women
Poverty and inequality	Nr. of indigent households supported by the city through its social packages	6 000	16 000	4 000 additional hh for the year	4 000 additional hh for the year	4 000 additional hh for the year	4 000 additional hh for the year	This indicator measures the number of additional households registered on the City's indigent register.
Public safety	% reduction in safety incidents (annual)	13 551	5% decrease between 2016 and 2021 (Decrease safety incidents from 13688 to 13003)	13 414 incidents for the year	13 277 incidents for the year	13 140 incidents for the year	13 003 incidents for the year	The decrease in safety incidents refers to the actual number of safety incidents reported and responded to by the City.
	% increase in interventions to root out crime and related incidents (annual)		5% increase over the 5 years (1% increase per year) (2878)	2792 interventions for the year	2820 interventions for the year	2849 interventions for the year	2878 interventions for the year	This indicator refers to interventions around crime prevention, by-law policing and road policing interventions conducted by the TMPD in efforts to increase public safety.
Institutional governance	Unqualified Audit Opinion achieved (Annual)	Unqualified audit opinion	Unqualified Audit opinion	Unqualified Audit opinion	Unqualified Audit opinion	Unqualified Audit opinion	Unqualified Audit opinion	This indicator reflects on the Auditor-General's opinion on the City's financial and non-financial report for the financial year

Key Performance Area	Indicator	Projected Baseline for 2016/17	2017/21 Target	Target 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Definition of the indicator
								under review.
Financial management	% financial targets met (regulated targets=cost coverage, debt coverage and % service debtors to revenue)	100%	100%	100%	100%	100%	100%	The financial targets of the City are set in the MTREF. This indicator measures the cost coverage, debt coverage and service debtors to revenue.
	% reduction of non-revenue water (NR.W) over	26%	Reduce with 3.5% over 5yr to 23%	<25,4%	<24.9%	<24%	<23%	This indicator refers to the reduction of non-revenue water as measured by the City. Water losses are a component of non-revenue water.
	% average of annual non-revenue energy (NR.E)(Annual)	<19%	<10%	<16%	<14%	<12%	<10%	This indicator measures the total % of non-revenue energy which is made up of technical losses and unaccounted for electricity out of the total energy distributed.

Key Performance Area	Indicator	Projected Baseline for 2016/17	2017/21 Target	Target 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Definition of the indicator
Employee satisfaction	% employee satisfaction rating (annual)	60%	80%	75%	N/A	80%	N/A	This indicator measures the employee satisfaction which is determined through an employee satisfaction survey. The percentage is calculated using the employees who completed the survey as the denominator. This is seen as a proxy for employee satisfaction as not all employees will participate and complete the survey although they will have the opportunity. The employee satisfaction survey is conducted once in two years. Although the survey is conducted by the Corporate and Shared Services, achieving improved ratings in the survey is the responsibility of all departments through implementation of HR policies,

Key Performance Area	Indicator	Projected Baseline for 2016/17	2017/21 Target	Target 2017/18	Target 2018/19	Target 2019/20	Target 2020/21	Definition of the indicator
								amongst others. The target set is based on the average norm for organisations such as the CoT as proposed by the BMR of UNISA.



## **Conclusion**

The focus of the above scorecard is to ensure that the objectives of the IDP and budget are realised through the implementation of various projects to deliver on the commitments for the new term of office of the Council. Reporting on the progress made during the year will be reported through the quarterly reporting process to Council which is described in the following chapter on performance management.

## 9. PERFORMANCE MANAGEMENT

### Introduction

The purpose of the performance management chapter is to describe the performance management system in the City of Tshwane, as well as the City's approach to ensure that the objectives in the strategic plans of the City are realised.

This chapter addresses the following areas:

- The model of performance management used in the City of Tshwane
- Plans and the alignment of targets and indicators
- Monitoring and evaluation
- Auditing of performance
- Tools for performance management
- Roles and responsibilities related to performance management

### Legislative environment governing performance management

Various pieces of legislation exist to govern the performance management of local government. These include –

- the Municipal Systems Act (MSA), 2000 (Act 32 of 2000);
- the Municipal Planning and Performance Management Regulations (MPPMR), 2001;
- the Municipal Finance Management Act (MFMA), 2003 (Act 53 of 2003) (MFMA); and
- the Municipal Performance Regulations for Municipal Managers and Managers Directly Accountable to Municipal Managers, 2006.

The City's performance management with regard to each of these Acts is summarised below.

*Municipal Systems Act, 2000 (Act 32 of 2000):* The City's IDP contains five-year IDP sub-programmes which include key performance indicators (KPI) and targets to measure progress over the medium and short term. The IDP contains annual performance targets that determine targets to assess implementation progress on a year-to-year basis.

These KPIs and targets are translated into service delivery and budget implementation plans (SDBIPs) to inform expected city-wide, departmental and individual performance outputs. The City's performance is monitored and reviewed on a quarterly and annual basis, informed by the achievement reports on the identified organisational, departmental and individual performance plans.

*Municipal planning and Performance Management Regulations, 2001:* As required by the 2001 regulations, the City's PMS allows for reporting to Council on a quarterly

basis. The quarterly reports are prepared for the purpose of identifying performance achievements and gaps, based on the set IDP indicators.

In enhancing performance monitoring, measurement and review, the City has an internal audit department responsible for auditing the results of performance measurements. In addition, the City has an audit and performance committee that considers the quarterly performance audit reports and reviews of the City's PMS to recommend improvements.

*Municipal Finance Management Act (MFMA), 2003 (Act 56 of 2003):* As part of the reporting processes, in addition to quarterly reports, the City compiles mid-year and annual reports on service delivery performance related to the achievement of targets and indicators. All the quarterly service delivery and budget implementation plan reports are prepared and submitted to legislated stakeholders.

In terms of annual reporting, annual reports have been prepared and published on the City's website and submitted to the Auditor-General as required.

*Local Government Municipal Performance Regulations for Municipal Managers and Managers directly accountable to Municipal Managers, 2006:* In accordance with the 2006 regulations, the appointment of all section 57 employees is in terms of written employment contracts and subject to the signing of performance agreements which are submitted to the MEC for Local Government, as well as the National Minister.

### **The model of performance management**

The City of Tshwane is in a process of developing a strategy for the period 2017-2030. The draft strategy sets out 5 priorities and vision principles to be achieved during the current political term.

The Council-approved City of Tshwane Performance Management Framework (November 2014) focuses on the implementation of an outcomes-based approach to performance management in the City of Tshwane.

The 'Outcomes Performance Management System' as aligned with national governments approach to planning and performance management ensures that the City's plans are driven by strategic outcomes, and that resources will be allocated accordingly. In other words, the outcomes approach forces alignment between inputs, outputs, outcomes and impacts, and enables measurement of efficiency, effectiveness, economy and equity.

### **Plans and the alignment of targets and indicators**

The key underlying principles of the approved Performance Management Framework include –

- linking strategy to operations;
- linking individual and organisational performance processes;
- linking and integrating risk management and audit with performance management processes;

- aligning levels of indicators and plans; and
- linking municipal entities to the performance management system of the City of Tshwane.

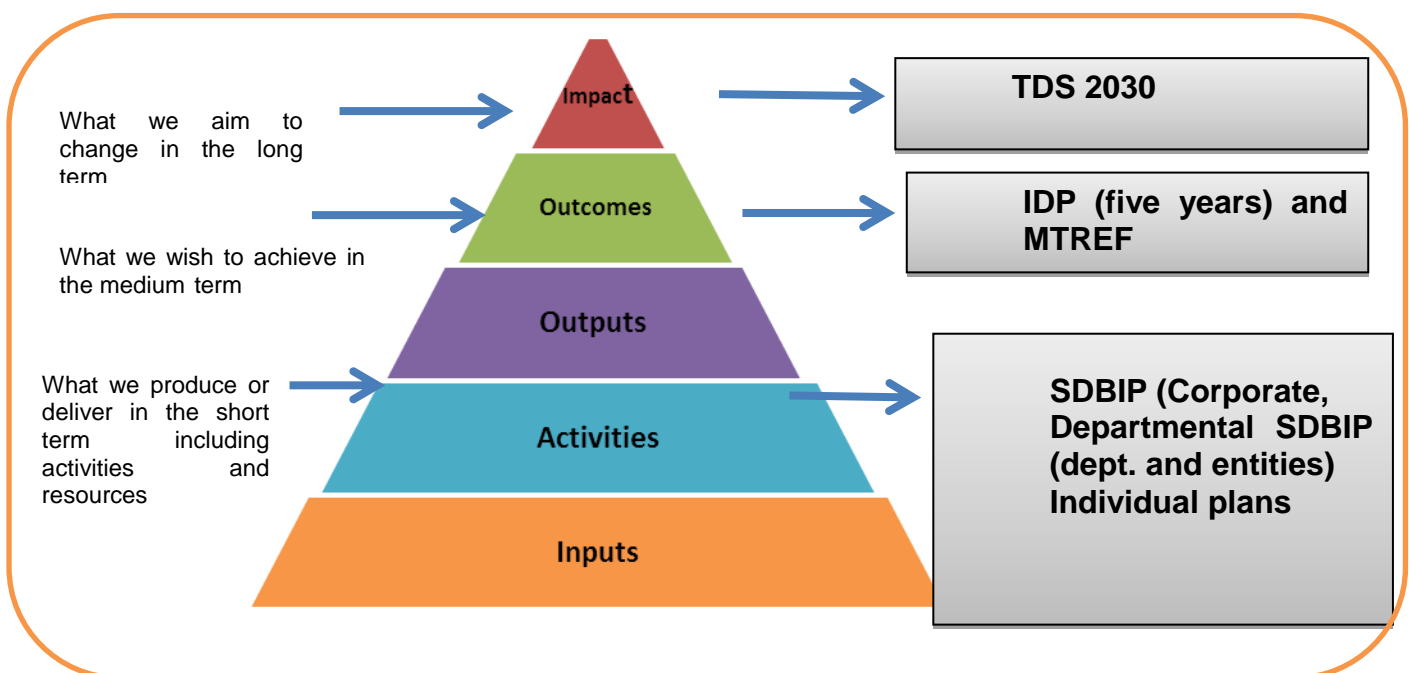
This requires that all levels of plans in the City be aligned.

The IDP is an important instrument that sets out how Tshwane Development Strategy will be achieved. The diagram below illustrates the alignment between the key plans of the City in relation to outcomes performance management.

Of note are the following:

- The Tshwane Development Strategy sets out values and development strategic pillars for the city as well as actions to deliver on these.
- The service delivery and budget implementation plan (SDBIP) is developed annually, and sets out annual output measures that contribute towards the achievement of the IDP outcomes. The SDBIP to be tabled in June will contain the IDP scorecard as well as the SDBIP scorecard.
- Departmental SDBIPs are developed annually, and set out specific departmental level outputs that contribute towards the achievement of the City's SDBIP.
- Individual performance plans and agreements are developed annually based on –
  - the IDP outcomes;
  - the SDBIP outputs; and
  - departmental SDBIP outputs.

**Figure 9.1: Hierarchy of plans (adapted from the Presidency, 2010)**



The effectiveness of the City's performance management system is dependent on the quality of the plans of the City. Therefore, the planning aspect of performance management processes in the City is focused on ensuring alignment between the hierarchy of plans listed above, through the planned outcomes, outputs, targets and indicators, and ensuring that indicators are reliable, well-defined, verifiable, cost-effective, appropriate and relevant<sup>11</sup>, and that targets are specific, measurable, achievable, relevant and time-bound.

The City's approach to planning requires that projects planned in the SDBIP must achieve the planned targets in the SDBIP and the planned outcomes in the IDP. Furthermore, all indicators and targets at various levels of planning must be supported by concise system descriptions<sup>12</sup>.

The community is predominantly involved in the planning processes through the IDP consultation mechanisms. To prevent and mitigate risks of not achieving the planned outcomes listed in the IDP, the City implements risk planning in the process of developing the hierarchy of plans. As part of the review of the performance management framework, the City will be developing operating procedures for planning.

## Monitoring and evaluation

Monitoring and evaluation are critical parts of the performance management system and enable performance improvement. Monitoring and evaluation are intimately related. Both are necessary management tools to inform decision-making and demonstrate accountability. Evaluation is not a substitute for monitoring nor is monitoring a substitute for evaluation. They may use the same steps (as listed below), however they produce different kinds of information (UNFPA, 2004).

The UNFPA, 2004 defines monitoring and evaluation as follows:

- **Monitoring** continuously tracks performance against what was planned by collecting and analysing data on the indicators established for monitoring and evaluation purposes. It provides continuous information on whether progress is being made towards achieving results (outputs, outcomes) through recordkeeping and regular reporting systems. Monitoring looks at both programme processes and changes in conditions of target groups and institutions brought about by programme activities. It also identifies strengths and weaknesses in a programme. The performance information generated from monitoring enhances learning from experience and improves decision-making.
- **Evaluation** is a periodic, in-depth analysis of programme performance. It relies on data generated through monitoring activities as well as information obtained from other sources (e.g. studies, research, in-depth interviews, focus

---

<sup>11</sup> FMPPi 2007

<sup>12</sup> A description of the indicator detailed among others how it is measured, the source of information for reporting, the frequency of data collection and the means of verification.

group discussions, surveys, etc.). The characteristics of monitoring and evaluation are discussed in the table below.

**Table 9.1: Characteristics of monitoring and evaluation (UNICEF, 1991. WFP, May 2000)**

Monitoring	Evaluation
Continuous	Periodic: At important milestones such as the mid-term of programme implementation At the end or a substantial period after programme conclusion
Keeps track, oversight, analyses and documents progress	In-depth analysis Compares planned with actual achievements
Focuses on inputs, activities, outputs, implementation processes, continued relevance, likely results at outcome level	Focuses on outputs in relation to inputs, results in relation to cost, processes used to achieve results, overall relevance, impact, and sustainability
Answers what activities were implemented and the results achieved	Answers why and how results were achieved Contributes to building theories and models for change
Alerts managers to problems and provides options for corrective actions	Provides managers with strategy and policy options
Self-assessment by programme managers, supervisors, community stakeholders and donors	Internal and/or external analysis by programme managers, supervisors, community stakeholders, donors and/or external evaluators

### Monitoring, reviewing and reporting

Monitoring continuously tracks performance against what was planned by collecting and analysing data on the indicators established for monitoring and evaluation purposes. It provides continuous information on whether progress is being made towards achieving results (outputs, outcomes) through recordkeeping and regular reporting systems (UNFPA, 2004).

Continuous monitoring and periodic reporting against the indicators and targets set in the different plans of the City is crucial during the implementation of the plans to measure progress against planned results. A result, according to UNFPA, 2004 is a describable/measurable change in state that is derived from the effects of generated programmes. There are three types of results (see table below) and these have already been discussed in the performance planning process, these include outputs, outcomes and impacts.

**Table 9.2: Definition of three results**

Term	Definition
Outputs	<ul style="list-style-type: none"> <li>The final products or goods and services produced for delivery</li> <li>What we produce or deliver</li> <li>Products and services that result from the completion of activities within a development intervention (UNFPA, Toolkit 1, 2004)</li> </ul>
Outcomes	<ul style="list-style-type: none"> <li>The intended or achieved short and medium-term effects of an intervention's outputs, usually requiring the collective effort of partners</li> </ul>

Term	Definition
	<ul style="list-style-type: none"> <li>• Outcomes represent changes in development conditions which occur between the completion of outputs and the achievement of impact (UNFPA, Toolkit 1, 2004)</li> <li>• The medium-term results for specific beneficiaries that are the consequence of achieving specific outputs</li> <li>• Outcomes should relate clearly to an institution's strategic goals and objectives set out in its plans</li> <li>• What we wish to achieve</li> </ul>
Impacts	<ul style="list-style-type: none"> <li>• The results of achieving specific outcomes, such as reducing poverty and creating jobs</li> <li>• Positive and negative long-term effects on identifiable population groups produced by a development intervention, directly or indirectly, intended or unintended These effects can be economic, socio-cultural, institutional, environmental, technological or of other types (UNFPA, Toolkit 1, 2004)</li> </ul>

The City of Tshwane monitors the implementation of plans at various levels of the organisation. However, for the purposes of monitoring and reporting on progress against planned targets and projects in the IDP and SDBIP the following is done:

- Monthly and quarterly reporting on the finances of the City
- Monthly reporting of departments on the departmental SDBIPs, projects and corporate SDBIP targets
- Quarterly reporting of departments on the departmental SDBIPs, projects and corporate SDBIP targets
- Monthly and quarterly coaching and individual performance assessments against individual performance plans
- Annual review of individual performance in relation to the annual performance results of the City and the AG report
- Quarterly submission of evidence of reported performance
- Quarterly reporting of performance results to Council through the council systems
- Quarterly reporting of performance results to external stakeholders such as National Treasury
- Mid-year and annual reporting of performance results to Council and to external stakeholders

Communities are provided feedback on performance against the IDP in the following ways:

- Community meetings
- Quarterly reports to ward committees via ward councillors after reports have served at Council. These are also placed on the City of Tshwane website.
- IDP engagement processes

Management and exception reports are developed regularly, and engagements take place with departments in order to address reasons for under-performance, corrective measures and quality of reports.

Service delivery outcomes must be assessed together with the financial dimension of performance. Currently, some aspects of this work are done through performance monitoring and reporting, where an assessment is done on whether the planned outcomes in the IDP have been achieved (effectiveness).

### Auditing of performance

Reported performance results are audited quarterly. In order to ensure integrity of the reported performance results, all departments are required to submit evidence of reported performance against the SDBIP targets and projects, and departmental SDBIPs. The quality of evidence is weighed against the 8 dimensions of quality from SASQAF (South African Statistical Quality Assessment Framework, 2010) and the AGSA criteria for auditing.

**Table 9.3: AGSA criteria**

Main Criteria	Sub-Criteria	Explanation Of Audit Criteria
<b>Compliance with reporting requirements</b>	<b>Existence</b>	Objectives, indicators and targets must be predetermined and performance information must be reported against them.
	<b>Timeliness</b>	Performance information must be reported within two months after year-end.
	<b>Presentation</b>	Performance information must be reported using the National Treasury guidelines.
		Actual performance information in tables and narrative in annual report must be consistent. Material differences between actual and planned performance must be explained.
<b>Reliability</b>	<b>Validity</b>	Actual reported performance has occurred and pertains to the entity.
	<b>Accuracy</b>	Amounts, numbers and other data relating to reported actual performance have been recorded and reported appropriately.
	<b>Completeness</b>	All actual results and events that should have been recorded have been included in the annual performance report.
<b>Usefulness</b>	<b>Measurability</b>	Objectives must be measurable by means of indicators and targets.
		Indicators should be well-defined and verifiable while targets should adhere to the SMART criteria.

Evidence files are centralised in the City Strategy and Organisational Performance Department, and are accessed by either Internal Audit or the Auditor-General through strict protocols for purposes of annual external audit.

The City has established Management Letter Action Plan (MLAP) committee in order to ensure that matters raised by the Auditor-General are addressed, and to prevent further audit findings. Audit reports are submitted to the Audit and Performance



Committee and to Council. Furthermore, the audited quarterly performance reports, the annual report and the annual financial statements are submitted to the Audit and Performance Committee and to Council.

Council may refer reports to the Municipal Public Accounts Committee (MPAC) for oversight.

### **Tools for performance management**

The City of Tshwane has implemented an electronic reporting system called Quality Processes and Results (QPR). Departments report on their departmental SDBIP targets, corporate SDBIP targets and their capital projects and to submit declarations confirming performance results and reliability of reported information. The IDP outcomes results are calculated on the system using planning information and formulae as contained in the approved IDP and SDBIP<sup>13</sup>, and management information is extracted for various stakeholders. Access to the system is controlled through strict protocols. All users are required to be trained to use the system. All heads of departments are required to sign off data that is reported by their departments on the system (first level of combined assurance).

### **Roles and responsibilities for performance management**

Performance management in the City of Tshwane is contributed to by a range of stakeholders. Below is a summary of key role players.

The City Strategy and Organisational Performance Department is responsible for assisting the City Manager to coordinate the following:

- The development of the IDP
- The development of the corporate SDBIP
- Departmental SDBIP development
- Organisational performance management and preparation for audit of predetermined objectives

The **Group Human Capital Management** Department assists the City Manager to manage the process of individual performance management for all levels of employees.

The **Office of the Executive Mayor** tracks and monitors mayoral commitments and priorities in addition to those on the IDP and SDBIP.

The **Chief Financial Officer** ensures the development of a credible budget to fund the IDP and SDBIP and monitors and reports on the financial performance of the City.

The table below lists specific stakeholders and their roles in the performance processes in the City of Tshwane.

---

<sup>13</sup> Supplemented by Systems Descriptions

**Table 9.4: Roles and responsibilities for performance management**

Stakeholders	Involvement
Executive Mayor	<ul style="list-style-type: none"> <li>• Oversight and strategic direction and ensuring service delivery approach to the planning and hence the performance system</li> <li>• Setting a long-term vision</li> <li>• Setting key strategic direction</li> <li>• Developing the IDP</li> <li>• Approving the SDBIP developed by the City Manager</li> <li>• Ensuring that the IDP contains performance framework and input, output and outcome indicators</li> <li>• Reporting to Council on the performance on the IDP and SDBIP, quarterly and annually</li> </ul>
Mayoral Committee	<ul style="list-style-type: none"> <li>• Supporting the Executive Mayor</li> <li>• Depending on systems of delegations will assist the Executive Mayor with the IDP development and oversight of the performance on the SDBIP and IDP</li> <li>• Assisting with decision-making on performance reports that are then forwarded to Council</li> </ul>
Section 79 oversight committees	<ul style="list-style-type: none"> <li>• Oversight on behalf of Council</li> <li>• Monitoring performance of the Mayor on the implementation of the IDP and budget</li> <li>• Oversight to ensure that the performance management system complies with legislative requirements</li> </ul>
Audit and performance committee	<ul style="list-style-type: none"> <li>• A committee of Council that should report to Council at least each quarter</li> <li>• Auditing the planning and performance management system</li> <li>• Oversight on performance, especially on compliance to audit criteria</li> <li>• Advising the Municipal Manager on improvements</li> </ul>
Council	<ul style="list-style-type: none"> <li>• Approving the IDP and the MTREF</li> <li>• Approving the adjusted SDBIP</li> <li>• Approving any amendments to the IDP and adjustments on the budget</li> <li>• Approving the performance management system as part of the IDP</li> <li>• Receiving performance reports of the Mayor and monitoring performance of the Mayor and administration</li> <li>• Submitting reports to MPAC and other oversight committees for oversight</li> </ul>
MPAC	<ul style="list-style-type: none"> <li>• Council oversight on IDP, annual report, financial statements and other functions delegated by Council</li> </ul>
Municipal Manager	<ul style="list-style-type: none"> <li>• Assisting the Mayor to develop the IDP</li> <li>• Ensuring that all senior managers sign performance agreements aligned with the IDP and SDBIP</li> <li>• Developing the SDBIP within the legislated timeframes and submitting to the Mayor for approval</li> </ul>

Stakeholders	Involvement
	<ul style="list-style-type: none"> <li>Monitoring performance of departments in the implementation of the budget and IDP</li> <li>Reporting to the Mayor on the implementation of the SDBIP, IDP and MTREF</li> <li>Accountable to the Mayor and Mayoral Committee</li> </ul>
Direct reports to the City Manager	<ul style="list-style-type: none"> <li>Developing departmental SDBIPs</li> <li>Contributing to development of IDP and SDBIP</li> <li>Implementing approved plans</li> <li>Reporting monthly on the implementation of approved plans</li> <li>Managing their departments performance and implementing correct measures</li> <li>Signing performance agreements with the City Manager</li> <li>Signing performance agreements with direct reports and ensuring that direct reports have operational plans that are reported on</li> </ul>
Staff and employees	<ul style="list-style-type: none"> <li>Implementing plans according to delegations</li> <li>Signing and implementing performance agreements</li> <li>Reporting monthly on implementation</li> </ul>
Internal Audit	<ul style="list-style-type: none"> <li>Assessing the functionality, effectiveness and legal compliance of the PMS</li> <li>Auditing the PMS to ensure that measures are reliable and useful</li> <li>Preparing the institution for audit by the AG</li> <li>Testing alignment of the operational plans with the strategic plans of the City</li> </ul>
Auditor General	<ul style="list-style-type: none"> <li>Testing the financial and performance reports of the Municipality for reliability, usefulness and legislative compliance</li> <li>Assisting municipalities to comply with clean audit criteria</li> <li>Reporting to parliament on the performance of government entities</li> </ul>
National and provincial spheres of government	<ul style="list-style-type: none"> <li>Functioning as legislated in the MSA and MFMA</li> </ul>
Ward committees, councillors and stakeholder forums	<ul style="list-style-type: none"> <li>Participating in the IDP, performance management and MTREF processes</li> <li>Informing priority setting</li> <li>Monitoring implementation of the plans of the City as committed, e.g. the implementation of IDP projects committed to a specific ward</li> </ul>
Citizens and communities	<ul style="list-style-type: none"> <li>Being consulted on needs</li> <li>Developing the long-term vision for the area</li> <li>Influencing the identification of priorities</li> <li>Influencing the choice of indicators and setting of targets</li> </ul>

## **Towards an improved performance monitoring and evaluation**

Performance management in the city continues to evolve. It is a critical tool for measuring the City's progress against its short and medium-term goals, as well as the long-term outcomes of the City. The City will continue to strengthen this tool for individual performance, institutional performance and to monitor and evaluate itself against its long-term goals.

Monitoring and evaluation of the long-term plans need to be an inherent part of improvements and accounting processes of the City as outlined in the approved Performance Management Framework.

## **Monitoring and Evaluation of the Tshwane Development Strategy**

The monitoring and evaluation of the Vision will need to be done in line with the City's approved Performance Management Framework. In line with this, the following will be taken into consideration:

- Clear programmes, projects indicators and targets will need to be developed as part of performance planning processes of the City to enable measurement of planned performance
- Accountability lines will need to be clearly defined to ensure that the key programmes, projects and actions that are identified to support the strategy have champions that will oversee their conceptualisation and implementation;
- Institutional arrangements will be established or existing ones used to allow for political oversight and monitoring as well;
- Performance of the individuals, departments, entities and the City as the whole to be aligned to the Tshwane Development Strategy; and
- Risk management to be inherent in the performance planning for the strategy to allow for informed decision making.

The following structures are proposed for the monitoring and the oversight of the implementation of this strategy:

**Table 9.5: Roles and Responsibilities re: performance management**

<b>Proposed M&amp;E/ oversight Structure</b>	<b>Role</b>	<b>Focus</b>	<b>Timeframes</b>
Executive Mayor and MayCo	<ul style="list-style-type: none"> <li>• Ensure implementation of the Tshwane Development Strategy</li> <li>• Politically engage internally and externally for the adoption and implementation of the Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Development partnerships</li> <li>• Alignment across spheres of government</li> <li>• Prioritisation of programmes and</li> </ul>	Ongoing/Annually

Proposed M&E/ oversight Structure	Role	Focus	Timeframes
		budgets	
Political Oversight Committees	<ul style="list-style-type: none"> <li>Engage on the planned implementation of the strategy through plans, programmes, projects as part of the IDP, SDBIP, policy and other lower level plans</li> </ul>	<ul style="list-style-type: none"> <li>Alignment of the city's plans and policies to the Strategy</li> <li>Citizenry and stakeholder focus of plans and programmes/projects</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly</li> </ul>
City Manager/Departments and entities	<ul style="list-style-type: none"> <li>Implementation of the Tshwane Development Strategy</li> </ul>	<ul style="list-style-type: none"> <li>Plan, Monitor and report on the implementation of the strategy</li> <li>Evaluate the implementation of the strategy</li> <li>Align the budgets of departments to the strategy</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly/Annually (intervention dependent)</li> </ul>

## Conclusion

This chapter has highlighted the performance management framework for the City as was approved by Council. In developing a comprehensive Tshwane Vision 2030 and in the programme, project and scorecard reporting, the framework shall serve as a guide for credible performance management system. The performance management framework is however as good as the strategic development framework it follows and therefore the City will adopt this in future to guide planning, budgeting and evaluation.

## 10. FINANCIAL PLAN

### Introduction

This chapter outlines the funding and budget approach to the 2017/18 IDP review, specifically the 2017/18 MTREF. The process towards the development of the 2017–2020 MTREF is in line with the Council-approved IDP and Budget Process Plan of August 2016.

### Background

Section 16(1) of the Municipal Finance Management Act (MFMA), 2003 (Act 56 of 2003) stipulates that the council of a municipality must approve an annual budget for the municipality for each financial year before the start of that financial year. Section 16(2) stipulates that in order to comply with subsection (1), the mayor of the municipality must table the annual budget at a council meeting at least 90 days before the start of the budget year.

Section 22 of the MFMA also stipulates that immediately after an annual budget is tabled in a municipal council, the accounting officer must make public the annual budget and documents in terms of section 17, invite the local community to submit representations in connection with the budget, and submit the annual budget to the National Treasury and the relevant provincial treasury in printed and electronic formats.

Section 23(2) of the MFMA stipulates further that “after considering all budget submissions, the Council must give the Executive Mayor an opportunity –

- to respond to the submissions; and
- if necessary, to revise the budget and table amendments for consideration by the council”.

Section 24 of the MFMA contains the requirements regarding the approval of annual budgets:

- “(1) The municipal council must at least 30 days before the start of the budget year consider approval of the annual budget.
- (2) An annual budget –
  - (a) must be approved before the start of the budget year;
  - (b) is approved by the adoption by the council of a resolution referred to in section 17(3)(a)(i); and
  - (c) must be approved together with the adoption of resolutions as may be necessary –
    - (i) imposing any municipal tax for the budget year;
    - (ii) setting any municipal tariffs for the budget year;
    - (iii) approving measurable performance objectives for revenue from each source and for each vote in the budget;

- (iv) approving any changes to the municipality's integrated development plan; and
  - (v) approving any changes to the municipality's budget-related policies.
- (3) The accounting officer of a municipality must submit the approved annual budget to the National Treasury and the relevant provincial treasury."

### **Community consultation process on the draft 2017/18 MTREF and Tshwane Integrated Development Plan**

The tabling of the Draft Budget and IDP was followed by public consultation meetings with various stakeholders. Consultation meetings were held at ward level with ward communities by the respective ward Councillors and a stakeholder summit held on 18 April 2017 at Sammy Marks Auditorium. The draft budget was also placed on the City's website, as well as distributed to all community libraries and the public was invited to render written comments for consideration.

The Draft 2017/18 MTREF and the proposed tariffs, as well as the proposed amendments to the approved Property Rates Act, were presented during these meetings and the public was invited to render written comments for consideration.

Submissions to the tabled 2016/17 MTREF were received and have been responded to in the budget documents which are separate from this document.

### **2017/18 Budget guidelines and principles**

The 2017/18 MTREF is informed by the needs of the community and the City's Integrated Development Plan strategic objectives.

According to section 25 of the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000), each municipal council must, after the start of its elected term, adopt a single, inclusive and strategic plan (Integrated Development Plan) (IDP) for the development of the municipality which links, integrates and coordinates plans and takes into account proposals for the development of the municipality and which aligns the resources and capacity of the municipality with the implementation of the said plan. The IDP forms the policy framework and general basis of the budget. A few are listed concerning the direction in which the MTREF will eventually have to lead.

The following strategic framers as discussed in the preamble of the document in relation to stabilisation, revitalisation and delivery are what informs the 2017/18 budget

## **Alignment with national directives**

National Treasury issued MFMA Circular No 85 dated 9 December 2016 and subsequently issued MFMA Circular No 86 on 8 March 2017 to guide the compilation of the 2017/18 MTREF.

The key focus of the circulars is the implementation of the municipal Standard Chart of Accounts (mSCOA), addressing municipal revenue generation challenges and the grant allocations as per the 2017 Budget Review.

All municipalities are required to comply with the mSCOA regulations by 1 July 2017. This means that the compilation of the 2017/18 Medium-Term Budget and Expenditure Framework (MTREF) must be compliant with the mSCOA classification framework.

The 2017/18 MTREF has been prepared in terms of the mSCOA classification and further work is underway to have the City to transact in terms of the mSCOA seven segments by July 2017.

The levels of spending for the 2017/18 MTREF are further informed by the need to ensure that the City's finances are stable. The City acknowledges that the resources are not adequate to address all programmes and projects identified during the consultation process and it therefore means that efforts must be put in place to ensure value for money in delivering the services and doing more with less.

## **Discussion of the 2016/17 MTREF**

### **Operational budget**

The City is tabling an operating revenue (excluding capital grants and contributions) amounting to R30,2 billion and escalates to R34billion in 2019/20. The operating expenditure amounts to R29,9 billion, resulting in a surplus of R259,7 million for the 2017/18 financial year. The revenue represents an increase of 1,58% and the expenditure increased by 4,7% against the 2016/17 Adjustments Budget.

The table below indicates the high-level 2017/18 to 2019/20 Medium-term Revenue and Expenditure Framework



**Table 10.1 MTREF 2017/18 – 2019/20**

	<b>Budget 2017/2018</b>	<b>Increase / Decrease</b>	<b>Estimate 2018/2019</b>	<b>Estimate 2019/2020</b>
Total Revenue	30 258 829 282	1,58%	31 998 753 103	34 004 579 993
Total Expenditure	29 994 829 343	4,69%	31 705 073 930	33 688 075 816
<b>(Surplus)/Deficit before Capital Grants</b>	<b>-263 999 939</b>		<b>-293 679 173</b>	<b>-316 504 177</b>
Transfers recognised - Capital	2 449 910 336		2 168 935 510	2 301 280 710
<b>(Surplus)/Deficit</b>	<b>-2 713 910 275</b>		<b>-2 462 614 683</b>	<b>-2 617 784 887</b>

### Revenue framework

The table below highlights the proposed percentage increase in tariffs per main service category:

**Table 10.2 Tariff increases by main service**

<b>Revenue Category</b>	<b>Proposed Tariff 2017/18</b>	<b>Proposed Tariff 2018/19</b>	<b>Proposed Tariff 2019/20</b>
Refuse removal	7,5%	7,5%	7,5%
Water	10,2%	5,7%	5,6%
Sanitation	10,2%	5,7%	5,6%
Electricity	1,88%	5,7%	5,6%
Property Rates	Based on new valuations	7%	7%

The following table is a high level summary of the MTREF (classified per main revenue source):

**Table 10.3 Main revenue by source**

Description  R thousand	2017/18 Medium Term Revenue & Expenditure Framework		
	Budget 2017/18	Estimate 2018/19	Estimate 2019/20
<b>Revenue By Source</b>			
Property rates	6,514,409,101	6,970,285,779	7,458,601,267
Service charges - electricity revenue	11,176,493,979	11,813,124,985	12,474,066,459
Service charges - water revenue	3,996,886,325	4,224,560,406	4,460,958,275
Service charges - sanitation revenue	982,878,680	1,038,993,782	1,097,273,474
Service charges - refuse revenue	1,410,505,866	1,512,513,054	1,622,063,168
Rental of facilities and equipment	151,864,331	166,870,101	182,865,847
Interest earned - external investments	79,492,589	74,608,912	79,433,982
Interest earned - outstanding debtors	466,690,860	380,169,069	398,996,043
Fines, penalties and forfeits	332,854,283	349,555,126	368,570,200
Licences and permits	54,796,089	58,484,124	61,759,340
Agency services	6,650,000	22,994,000	37,440,000
Transfers and subsidies	4,159,531,871	4,425,895,490	4,747,475,290
Other revenue	887,079,295	924,703,745	977,066,547
Gains on disposal of PPE	5,880,214	1,242,497	1,312,100
<b>Total Revenue (excluding capital transfers and contributions)</b>	<b>30,226,013,483</b>	<b>31,964,001,070</b>	<b>33,967,881,993</b>
Contributed Assets	32,815,800	34,751,932	36,698,000
<b>Total Revenue</b>	<b>30,258,829,283</b>	<b>31,998,753,002</b>	<b>34,004,579,993</b>

The revenue sources are discussed below:

#### *Property rates*

A new General Valuation (GV) will be implemented on 1 July 2017, in line with legislation. The total GV increased with 16% over the past four years. The tariffs have therefore slightly decreased to generate a revenue increase of 10,72% compared to the 2016/17 Adjustments Budget.

The first R15 000 value is legislatively impermissible for the charging of property rates, and a further valuation reduction of R105 000 is granted by Council for charging of property rates. All residential properties are thus not charged any property rates on the first R120 000 of the value and registered indigents pay no property rates.

Rebates to pensioners and the disabled are levied in terms of the Property Rates Policy.

#### *Electricity revenue*

In terms of the Multi Year Price Determination (MYPD) for Eskom's tariffs approved by the National Energy Regulator of South Africa (NERSA), a tariff increase of 2,2% was approved for the 2017/18 financial year on 23 February 2017, leading to a bulk purchase tariff increase of 0,31% for municipalities. The Energy Regulator issued a guideline tariff increase of 1,88% for the 2017/18 MTREF.

Municipalities are urged to examine the cost structure of providing electricity services and to apply to NERSA for electricity tariff increases that reflect the total cost of providing the service so that they work towards achieving financial sustainability.

An increase of 1,88% for the 2017/18 financial year is proposed in line with the NERSA guideline.

The tariff structure with regard to households provides for inclining block tariffs. Registered indigents are granted 100 kWh free of charge.

#### *Water revenue*

The revenue for water services increased by 10,2% in line with the proposed tariff. The tariff structure consists of a rising block tariff with pro-poor lower block tariffs and pro-water conservation blocks for higher usage to encourage water savings.

Registered indigents are granted 12 kl free of charge.

#### *Sanitation revenue*

Sanitation charges are calculated according to the percentage water discharged and a 10,2% tariff increase is proposed.

#### *Refuse removal revenue*

The tariff structure for refuse removal comprises of two components, which is for refuse removal and city cleansing. The tariff for refuse removal is based on the cost per m<sup>3</sup> (container capacity) of refuse removed per month and on the service provided in a specific area.

A tariff increase of 7,5% for 2017/18 is proposed to render a stable service to all areas. the City has introduced a rebate for all residential properties with a property value R120 000 and below. This category of customers will only pay R179,98 an equivalent of the 85 bin charge. Customers with no waste account or services by the private sector are required to pay a City Cleaning Levy.

More information regarding the tariff increases are contained in Annexure B of the detailed budget document and details of the proposed tariff schedules are set out in Annexures C to G.

### **Grant funding**

Division of revenue bill no.04 2017

The National and Provincial allocations in terms of the Division of Revenue Bill No. 4 of 2017 and the 2017 Provincial Gazette No. 68 are set out as follows:

Table 10.4 Grant Allocations: 2017/18

Description	2017/18 Medium Term Revenue & Expenditure Framework		
	Budget Year 2017/18	Budget Year +1 2018/19	Budget Year +2 2019/20
RECEIPTS:	R'000	R'000	R'000
<b>Operating Transfers and Grants</b>			
<b>National Government:</b>	<b>3 875 608</b>	<b>4 287 952</b>	<b>4 600 115</b>
Local Government Equitable Share (EQS)	2 132 788	2 404 666	2 661 272
Fuel Levy (FL)	1 444 413	1 487 277	1 527 361
Finance Management Grant (FMG)	2 650	2 400	2 200
Urban Settlement Development Grant	48 492	50 937	53 812
Expanded Public Works Programme Incentive (EPWP)	20 451	–	–
Public Transport Network Operations Grant (PTNG)	221 049	336 024	348 450
Integrated City Development Grant (ICDG)	5 764	6 648	7 021
<b>Provincial Government:</b>	<b>217 173</b>	<b>137 943</b>	<b>147 360</b>
Primary Health Care (PHC)	46 541	49 837	51 997
Emergency Medical Services (EMS)	65 993	70 515	74 464
HIV and Aids Grant	12 720	13 591	16 899
Human Settlement Development Grant (HSDG)	90 664	–	–
Sports and Recreation : Community Libraries	1 255	4 000	4 000
<b>Other grant providers:</b>	<b>66 751</b>	<b>–</b>	<b>–</b>
Development Bank of South Africa (DBSA)	61 000	–	–
Tirelo Bosha Grant - Research and Development	5 751	–	–
<b>Total Operating Transfers and Grants</b>	<b>4 159 532</b>	<b>4 425 895</b>	<b>4 747 475</b>
<b>Capital Transfers and Grants</b>			
<b>National Government:</b>	<b>2 329 777</b>	<b>2 150 936</b>	<b>2 290 781</b>
Urban Settlement Development Grant (USDG)	1 567 923	1 646 977	1 739 911
Public Transport Infrastructure & Systems Grant (PTNG)	679 190	396 285	426 086
Integrated National Electrification Programme (INEP)	30 000	40 000	40 000
Neighbourhood Development Partnership Grant (NDPG)	20 000	30 000	45 000
Integrated City Development Grant (ICDG)	32 665	37 674	39 783
<b>Provincial Government:</b>	<b>43 507</b>	<b>10 000</b>	<b>10 500</b>
Sport and Recreation: Community Libraries	9 507	10 000	10 500
Social Infrastructure Grant (SIG)	34 000	–	–
<b>Other grant providers:</b>	<b>6 000</b>	<b>8 000</b>	<b>–</b>
LG SETA Discretionary grant	6 000	8 000	–
<b>Total Capital Transfers and Grants</b>	<b>2 379 284</b>	<b>2 168 936</b>	<b>2 301 281</b>
<b>TOTAL RECEIPTS OF TRANSFERS &amp; GRANTS</b>	<b>6 538 816</b>	<b>6 594 831</b>	<b>7 048 756</b>

The total grant allocations amount to R6,5 billion, R6,6 billion and R7,0 billion for the 2017/18, 2018/19 and 2019/20 financial years respectively.

### *Operating grants*

The total allocated for the 2017/18 financial year on the operating grants amounts to R4,2 billion. The City share of the general fuel levy amounts to R1,4 billion, and the equitable share allocation is R2,1 billion.

An amount of R221 million is allocated towards BRT operations from the Public Transport Infrastructure Grant and R48,0 million or 3% is allocated towards capacity building from the USDG grant.

The Human Settlement Development Grant, for the 2017/18 financial year, amounts to R91,0 million.

### *Infrastructure grants*

The total allocated for the 2017/18 financial year on the capital grants amounts to R2,4 billion. The supplementary funding on the USDG amounts to R1,6 billion, and 3% is allocated for capacity building. The capital allocation on the PTNG amounts to R680 million.

The subsidy to address electrical backlogs on the INEP grant amounts to R30 million and R34 million is allocated to the building of Social Infrastructure facilities. The recapitalisation of libraries programme is allocated R9,5 million.

### *Other grants*

Other grants to be received are from the Development Bank of South Africa (DBSA) for feasibility study amounting to R61 million for the reduction of water losses. The budget includes an allocation of R5,8 million for Research and Development from the Department of Public Service Administration and the discretionary grant on training from the LG SETA amounting to R6 million.

## **Expenditure framework**

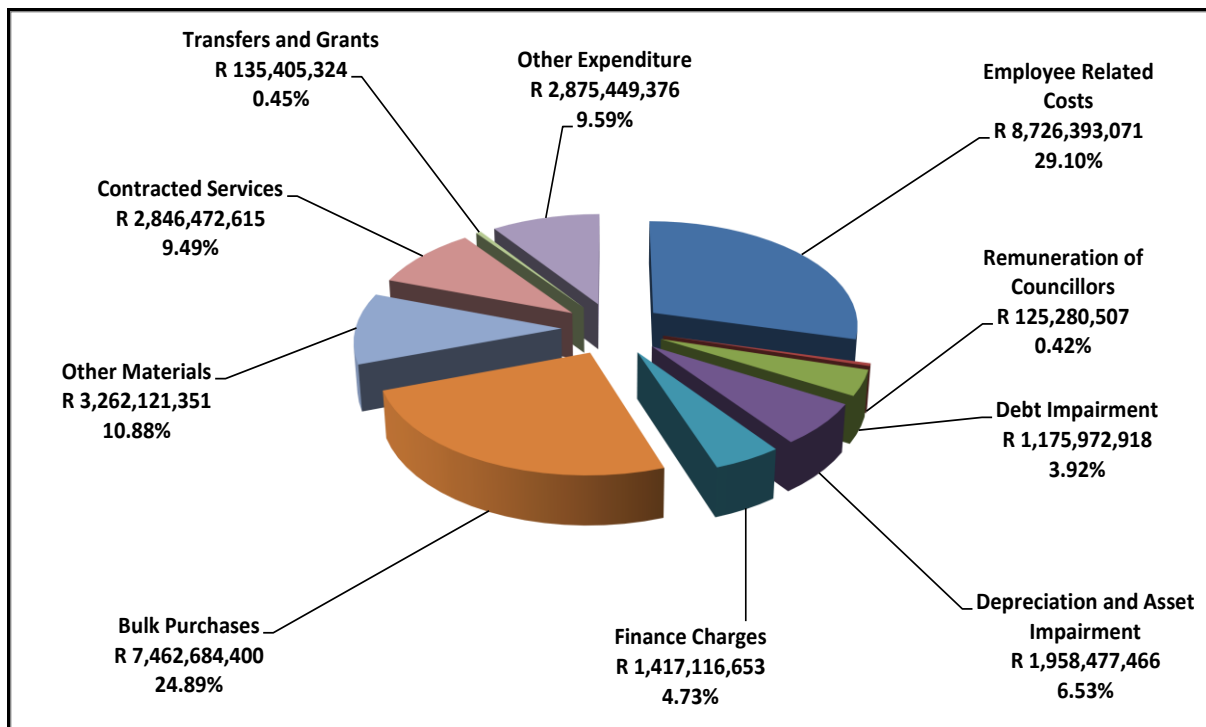
The following table is a high level summary of the 2017/18 Medium-term Expenditure Framework (classified per main category of expenditure):

**Table 10.5 Medium term expenditure framework**

	<b>Budget 2017/2018</b>	<b>Estimate 2018/2019</b>	<b>Estimate 2019/2020</b>
<b>Expenditure</b>			
Employee Related Costs	8 778 771 745	9 439 307 269	10 072 202 421
Remuneration of Councillors	125 280 507	132 672 056	140 102 000
Debt Impairment	1 175 972 918	1 269 943 153	1 344 920 734
Depreciation and Asset Impairment	1 961 301 772	2 106 141 142	2 225 084 144
Finance Charges	1 417 356 526	1 199 598 327	1 145 762 278
Bulk Purchases	7 462 684 400	7 902 982 800	8 361 355 800
Other Materials	3 264 102 332	3 518 605 025	3 771 550 661
Contracted Services	2 865 415 647	2 965 098 036	3 275 913 145
Transfers and Grants	49 980 235	53 438 449	56 523 218
Other Expenditure	2 893 962 200	3 117 286 549	3 294 660 215
Loss on Disposal	1 062	1 125	1 200
<b>Total Expenditure</b>	<b>29 994 829 343</b>	<b>31 705 073 930</b>	<b>33 688 075 816</b>

The operating expenditure equates to R29,9 billion in the 2017/18 financial year and escalates to R33,6 billion in the 2019/20 financial year. Total operating expenditure has increased by 4,7% against the 2016/17 Adjustments Budget.

The following graph illustrates the percentage each expenditure group constitutes of the total expenditure for the 2017/18 financial year:

**Figure 10.1 Operating Budget Distribution per Expenditure Group**

The expenditure groups are discussed below:

#### *Employee Related Costs*

The employee related cost is based on warm bodies taking into account the salary increases.

The South African Local Government Bargaining Council entered into a three-year Salary and Wage Collective Agreement for the period 01 July 2015 to 30 June 2018. The agreement reached is as follows:

2015/16 Financial Year – 7 per cent

2016/17 Financial Year – average CPI (Feb 2015 – Jan 2016) + 1 per cent

2017/18 Financial Year – average CPI (Feb 2016 – Jan 2017) + 1 per cent

Salaries increased by 7,4%.

#### *Remuneration of councillors*

The cost associated with the remuneration of councillors is determined and informed directly by way of the Remuneration of Public Office Bearers Act, 1998 (Act 20 of 1998). The determined upper limits of salaries, allowances and benefits of members of Council are gazetted annually in December/January.

#### *Debt impairment*

- The Provision for Debt Impairment was determined based on an annual collection rate of 95%.

#### *Depreciation and asset impairment*

Depreciation and asset impairment amounts to R1,9 billion for the 2017/18 financial year.

#### *Finance charges*

The increase in finance charges can be directly attributed to the level of external borrowings. Finance charges provided in the MTREF amounts to R1,4 billion, R1,2 billion and R1,1 billion respectively.

#### *Bulk Purchases*

Eskom bulk purchases amount to R7,5 billion, R7,9 billion and R8,4 billion in the 2017/18 MTREF.

#### *Other Materials*

This expenditure group amounts to R3,3 billion in the 2017/18 financial year. Bulk purchases of water are also reflecting under this group of expenditure and amount to R2,5 billion as per mSCOA classification.

#### *Contracted Services*

Contracted Services amount to R2,8 billion in the 2017/18 financial year included contracts such as waste removal, smart meter fee, A Re Yeng Operations etc.

#### *Other Expenditure*

This group of expenditure comprises of general related expenditure and amounts to R2,8 billion. It should be noted that in terms of NT regulations and formats, repairs

and maintenance is divided between other materials, contracted services and other expenditure. Further details are provided in the Budget Document (Annexure B).

**Operating budget per vote**

The following table represents the 2017/18 MTREF per department:



Table 10.6 2017/18 Operating budget per vote

Department	Budget 2017/18	Budget 2018/19	Budget 2019/20
Community & Social Development Services	(23,539,559)	(5,878,277)	(5,983,600)
Economic Development & Spatial Planning	(360,548,970)	(372,829,171)	(393,742,416)
Emergency Management Services	(81,401,729)	(86,829,943)	(91,692,600)
Environment & Agriculture Management	(175,513,884)	(89,060,393)	(94,086,700)
Group Audit & Risk	(42,164,833)	(44,239,558)	(46,716,900)
Group Financial Services	(10,384,087,832)	(11,096,132,401)	(11,894,561,038)
Group Property	(93,279,409)	(97,767,162)	(102,270,300)
Health Department	(59,441,910)	(63,619,584)	(69,098,400)
Housing & Human Settlement	(55,302,473)	(58,138,449)	(61,419,027)
Regional Operations & Coordination	(1,588,115,866)	(1,700,961,806)	(1,821,258,768)
Roads & Transport	(324,193,380)	(444,117,621)	(463,033,974)
Shared Services	(1,063,414)	(1,126,124)	(1,191,400)
Tshwane Metro Police Department	(334,516,266)	(351,317,321)	(370,430,900)
Utility Services: Electricity	(11,407,837,984)	(12,054,820,364)	(12,729,491,850)
Utility Services: Water and Sanitation	(5,233,228,610)	(5,420,212,941)	(5,721,236,655)
<b>Utility Services</b>	<b>(16,641,066,594)</b>	<b>(17,475,033,305)</b>	<b>(18,450,728,506)</b>
Other Votes	(80,881,766)	(74,460,907)	(78,641,700)
City Manager	-	-	-
City Strategy & Organisational Performance	(5,750,911)	-	-
Customer Relations Management	-	-	-
Group Communication & Marketing	(50,013,125)	(52,845,900)	(55,805,300)
Group Human Capital Management	(19,999,827)	(21,179,797)	(22,376,800)
Group Legal and Secretariat Services	(410,963)	(435,210)	(459,600)
Office of the Chief Whip	-	-	-
Office of the Executive Mayor	(4,706,940)	-	-
Office of the Speaker	-	-	-
<b>Total Revenue - Excl. Transfer Recognised - Capital</b>	<b>(30,245,117,884)</b>	<b>(31,961,512,022)</b>	<b>(33,944,856,229)</b>
Community & Social Development Services	366,932,700	359,663,415	384,150,653
Economic Development & Spatial Planning	662,312,782	692,540,409	738,693,581
Emergency Management Services	660,745,257	705,829,416	754,699,783
Environment & Agriculture Management	682,139,141	617,354,043	661,214,569
Group Audit & Risk	320,121,172	337,960,126	357,762,531
Group Financial Services	3,291,436,590	3,211,463,020	3,268,216,509
Group Property	471,404,000	492,178,101	527,142,930
Health Department	395,176,320	407,916,241	434,967,203
Housing & Human Settlement	314,069,036	327,160,808	350,674,159
Regional Operations & Coordination	3,629,646,670	3,931,653,730	4,358,965,106
Roads & Transport	1,328,192,235	1,495,873,065	1,595,886,608
Shared Services	1,369,586,479	1,450,198,302	1,541,779,653
Tshwane Metro Police Department	2,087,471,375	2,219,224,913	2,370,468,269
Utility Services: Electricity	9,281,512,933	9,872,712,084	10,489,054,215
Utility Services: Water and Sanitation	3,918,873,802	4,178,113,404	4,429,143,851
<b>Utility Services</b>	<b>13,200,386,735</b>	<b>14,050,825,488</b>	<b>14,918,198,066</b>
Other Votes	1,205,754,253	1,372,165,842	1,457,728,918
City Manager	96,108,490	102,444,994	108,931,044
City Strategy & Organisational Performance	29,685,776	25,407,516	26,976,842
Customer Relations Management	202,163,475	216,223,499	231,047,461
Group Communication & Marketing	112,363,036	118,547,964	124,198,104
Group Human Capital Management	238,192,600	243,420,498	259,657,718
Group Legal and Secretariat Services	120,643,272	128,427,180	136,640,591
Office of the Chief Whip	28,911,527	30,528,037	32,475,025
Office of the Executive Mayor	208,573,664	221,107,429	234,440,044
Office of the Speaker	169,112,413	286,058,725	303,362,089
<b>Total Expenditure</b>	<b>29,985,374,744</b>	<b>31,672,006,920</b>	<b>33,720,548,539</b>
<b>(Surplus)/Deficit- Excl. Transfer Recognised - Capital</b>	<b>-259,743,140</b>	<b>-289,505,102</b>	<b>-224,307,690</b>

The following are some of the issues/programmes accommodated within the operational budget:

#### *Community and Social Development*

The total allocation for Community and Social Development in the 2017/18 financial year includes allocations for:

- EPWP initiatives – R143 million (R122,5 council contribution and R20,5 million grant funding)
- Drug and substance abuse – R40 million
- Sports and culture – R10,9 million

#### *Economic and Spatial Planning*

The budget allocation for Economic and Spatial Planning in the 2017/18 financial year includes allocations for:

- SMME Initiatives – R14,7 million
- LED Initiatives – R28,8 million
- Inner city regeneration – R6 million

#### *Group Audit and Risk*

The total budget allocation for 2017/18 financial year includes allocations for:

- Internal audit – R26,9 million
- Forensic audit – R36,8 million

#### *Health Department*

The total allocation for Health includes allocations for programmes such as:

- HIV/Aids – R18,7 million (R6 million city contribution and R12,7 million grant funding)
- National Health Insurance – R20,8 million

#### *Housing and Human Settlements*

The total allocation for 2017/18 financial year covers the following programmes:

- Formalisation of informal settlements – R106,2 million

Other programmes included in the 2017/18 allocation relate to:

- Wi-Fi – R88,5 million
- Repairs and maintenance – R1,3 billion
- A Re Yeng Operations – R301 million
- Rudimentary services – R120 million

## Capital budget

Guidelines relating to the compilation of the 2017/18 capital budget were compiled in consultation with the City Planning and Development Department and IDP Office. Capital projects were captured on the capital investment planning system within affordability levels. The total draft capital budget amounts to R3,9 billion, R3,8 billion and R4,4 billion for 2017/18, 2018/17 and for 2019/20 respectively.

The Capital Budget is funded from the following sources:

- Internally generated revenue (including Public Contributions and Donations and CRR) – R481 million.
  - Borrowings – R1 billion
  - Grant funding - R2,4 billion.

### *Capital Budget per funding source*

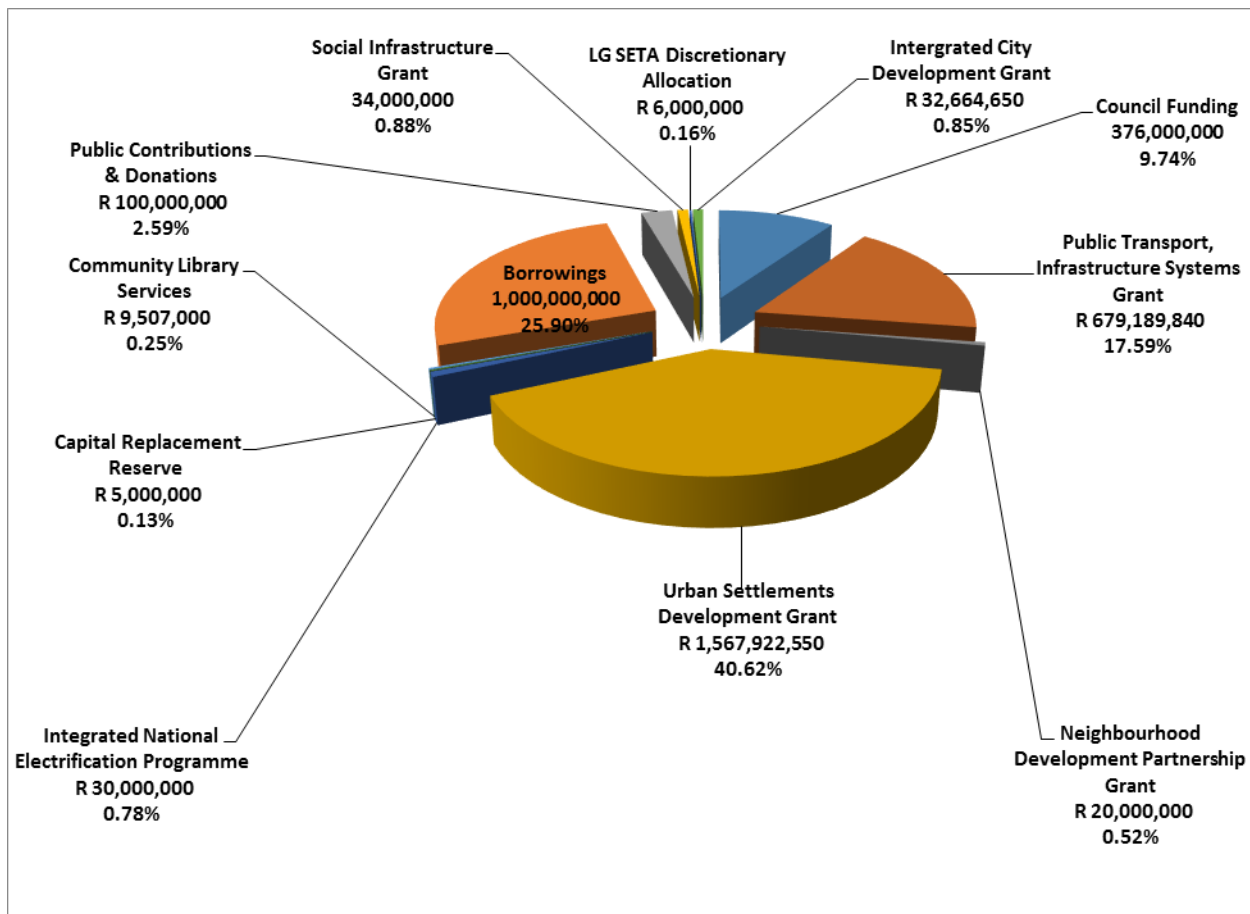
The following table indicates the 2017/18 Medium-term Capital Budget per funding source:

**Table 10.7 Capital budget per funding source**

Funding Source Description	Budget 2017/18	%	Budget 2018/19	Budget 2019/20
Council Funding	376,000,000	9.74%	500,000,000	650,000,000
Public Transport, Infrastructure Systems Grant	679,189,840	17.59%	396,285,230	426,086,000
Neighbourhood Development Partnership Grant	20,000,000	0.52%	30,000,000	45,000,000
Urban Settlements Development Grant	1,567,922,550	40.62%	1,646,976,580	1,739,911,310
Integrated National Electrification Programme	30,000,000	0.78%	40,000,000	40,000,000
Capital Replacement Reserve	5,000,000	0.13%	5,000,000	5,000,000
Community Library Services	9,507,000	0.25%	10,000,000	10,500,000
Borrowings	1,000,000,000	25.90%	1,000,000,000	1,300,000,000
Public Contributions & Donations	100,000,000	2.59%	150,000,000	150,000,000
Social Infrastructure Grant	34,000,000	0.88%	-	-
LG SETA Discretionary Allocation	6,000,000	0.16%	8,000,000	-
Intergrated City Development Grant	32,664,650	0.85%	37,673,700	39,783,400
<b>TOTAL</b>	<b>3,860,284,040</b>	<b>100.00%</b>	<b>3,823,935,510</b>	<b>4,406,280,710</b>

The following graph summarises the above table in terms of the allocations per main funding source:

Figure 10.2 Allocations per main funding source



### *Capital Budget per department (vote)*

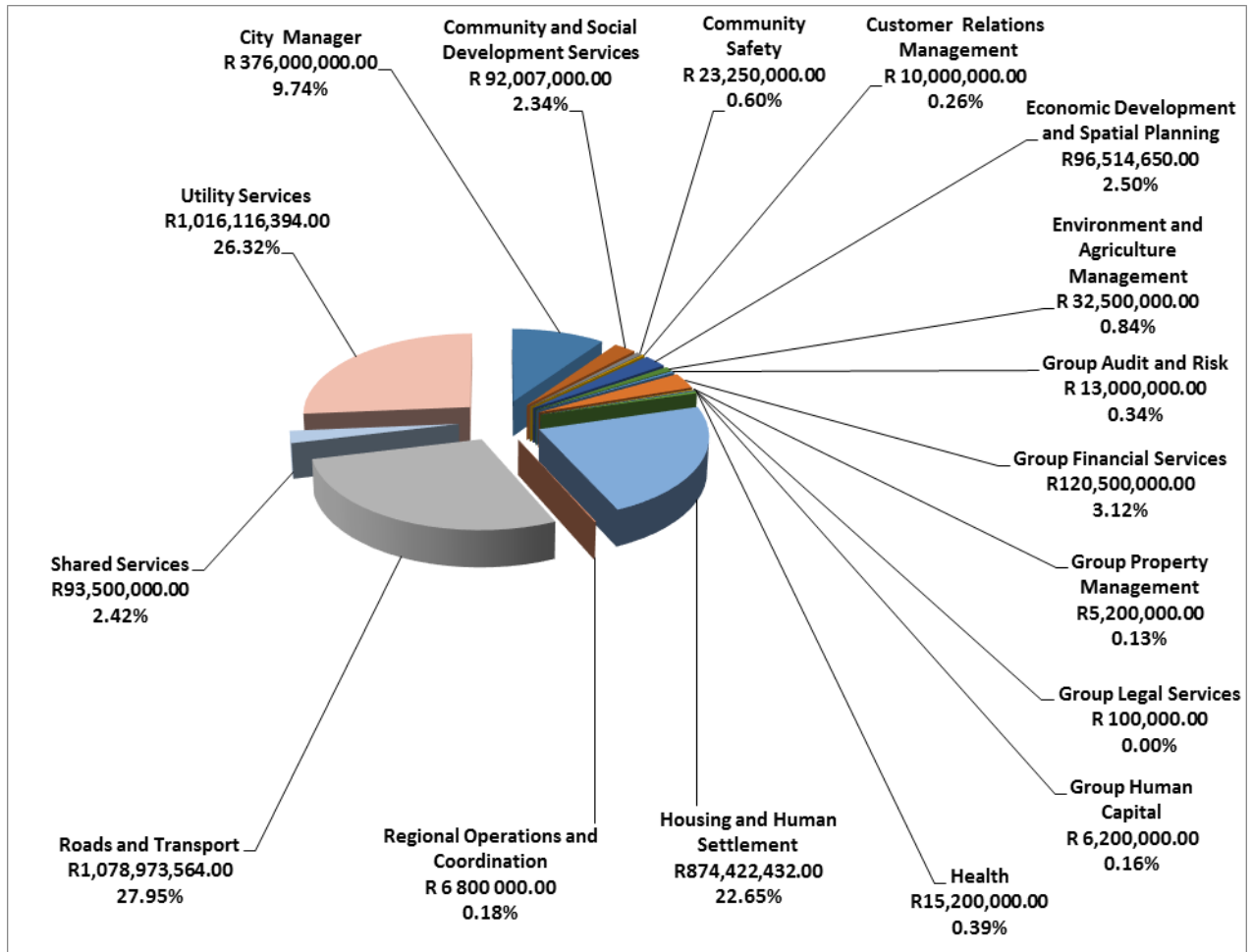
The following table indicates the 2017/18 Medium-term Capital Budget per Department:

**Table 10.8 MTREF Capital budget per department (Vote)**

Department	Budget 2017/18	%	Budget 2018/19	Budget 2019/20
City Manager	376,000,000	9.74%	335,000,000	848,000,000
<b>Community and Social Development Services</b>	<b>91,707,000</b>	<b>2.38%</b>	<b>67,000,000</b>	<b>63,500,000</b>
Sports and Recreation	57,707,000		67,000,000	63,500,000
Social Development	34,000,000		-	-
<b>Community Safety</b>	<b>23,250,000</b>	<b>0.60%</b>	<b>20,000,000</b>	<b>45,000,000</b>
Emergency Services	10,250,000		10,000,000	35,000,000
Metro Police Services	13,000,000		10,000,000	10,000,000
Customer Relations Management	10,000,000	0.26%	3,000,000	2,000,000
<b>Economic Development and Spatial Planning</b>	<b>96,514,650</b>	<b>2.50%</b>	<b>108,173,700</b>	<b>109,783,400</b>
City Planning and Development	33,114,650		37,673,700	39,783,400
Economic Development	63,400,000		70,500,000	70,000,000
Environment and Agriculture Management	32,500,000	0.84%	51,000,000	62,500,000
Group Audit and Risk	13,000,000	0.34%	13,000,000	13,000,000
Group Financial Services	120,500,000	3.12%	55,000,000	22,000,000
Group Legal Services	100,000	0.00%	-	-
Group Property	5,200,000	0.13%	5,000,000	5,000,000
Group Human Capital	6,200,000	0.16%	8,000,000	-
Health	15,500,000	0.40%	32,000,000	39,936,000
Housing and Human Settlement	874,422,432	22.65%	1,025,508,909	920,000,000
Regional Operations and Coordination	6,800,000	0.18%	3,000,000	5,000,000
Roads and Transport	1,078,973,564	27.95%	861,983,455	967,786,000
Shared Services	93,500,000	2.42%	103,000,000	118,000,000
<b>Utility Services</b>	<b>1,016,116,394</b>	<b>26.32%</b>	<b>1,133,269,446</b>	<b>1,184,775,310</b>
Energy and Electricity	488,312,146		630,154,020	580,275,310
Water and Sanitation	527,804,248		503,115,426	604,500,000
<b>TOTAL CAPITAL BUDGET</b>	<b>3,860,284,040</b>	<b>100%</b>	<b>3,823,935,510</b>	<b>4,406,280,710</b>

The following graph illustrates the above table in terms of allocations per department:

**Figure 10.3 MTREF allocations per department (Vote)**



The detail capital budget indicating all projects per department is contained in Chapter 8 of this document

Some of the main projects and key focus areas of the budget and IDP to be addressed in 2017/18 financial year are reflected in chapter 7 of this document. From this chapter, it is clear that a large portion of the capital budget has been allocated to address basic infrastructure and human settlement provision in the 2017/18 MTREF thereby creating opportunities for an environment where businesses want to invest, entrepreneurship can thrive and where government is supportive to economic growth.

The balance of the funding allocations has been prioritised in terms of ensuring the city becomes a well governed city, a responsive and caring city and building safer communities.

## Asset Management

The following table summarises the capital programme in terms of new assets and the renewal of existing assets.

**Table 10.9 Capital programme per asset category**

Description	Budget 2017/18	%	Budget 2018/19	%	Budget 2019/20	%
New	2,154,749,462	55.82%	1,877,156,510	49.09%	2,385,710,710	54.14%
Renewal	1,705,534,578	44.18%	1,946,779,000	50.91%	2,020,570,000	45.86%
<b>Total Capital Budget</b>	<b>3,860,284,040</b>	<b>100.00%</b>	<b>3,823,935,510</b>	<b>100.00%</b>	<b>4,406,280,710</b>	<b>100.00%</b>

The objective is to provide a complete picture of the municipality's asset management strategy, indicating the resources being deployed for maintaining and renewing existing assets, as well as the extent of asset expansion.

In terms of MFMA Circulars 55 and 66 at least 40% of the Capital Budget must be allocated towards renewal of existing assets. From the above table it can be seen that 44,18%, 50,91% and 45,86% of the budget has been allocated for the renewal of existing assets in the 2015/16, 2016/17 and 2017/18 financial years respectively.

## Conclusion

This chapter has provided a summary of the budget as contained in the detail MTREF document which is separate from this document. The chapter highlights the asset management, revenue management, tariff policy and capital as well as operational budget for the City. Information contained in this chapter should shed some light as to how this IDP is funded. The chapter as well as the detailed MTREF with its supporting documents will be a base on which the 2017/18 SDBIP is developed and thus will practicalise this IDP.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	1	Upgrade of parks and pavements	In the Ward	Environmental and Agricultural Management and Regional Operations and Coordination		No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables. The maintenance of parks form part of the Regional operations and programmes and will receive attention.	None
3	1	Housing	in the ward	Housing and Human Settlements	Danville Phase Two 2 - 50 units/houses 17/18 F/Y	Yes	Gauteng Human Settlement	N/A
3	1	Upgrade DeWaal intersection	Daspoort	Roads and Transport	Project feasibility was conducted to upgrade the interchange.	No	To be priotised and included in the Pedestrian Safety Master Plan	Pedestrian Safety Master Plan/No funding available for 2017/18
1	2	Social Development training Centre	in the ward	Community and Social Development services	Feasability of centre to be investigated in terms of norms and standards. New centres in wards 21 and 94 to be considered.	No	Beyond current MTREF	Future IDP and capex budget priority.



Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	2	Infrastructure Maintenance	in the ward	Regional Operations and Coordination	The maintenance of infrastructure form part of the Regional operations and programmes and will receive attention.	Yes		
1	2	Bussiness Park/Training Centers	in the ward	Economic Development and Spatial Planning	Establishment of business hub that will offer different work opportunities to communitiy and small businesses .	No	In the 2018/19 financial period	Enterprise hub to develop and support cooperatives, informal traders and SMMEs
3	3	Sports and recreation facilities in various places in ward 3. There is a lack of sport facilities for the community especialy children. In addition parks are not fully utilised. A proposal was put forward to make parks more functional by adding various sport related additions to exixting parks	Erf 4312-Sekelgras Str/M Lloyd Str in Danville; Erf 745-Kiewiet Str Kwaggasrand,; All parks in ward 3	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	3	Community safety and security. Crime is consistently increasing in the ward3 as a whole. Armed robberies, house break ins, hijackings, robberies, muggings, attempted kidnapping, drug dealing and peddling to children, illegal taverns, dumping etc. are the order of the day in the ward.	Entire Ward 3	Community Safety	Members are deployed on a daily basis according to information received from the Station Crime Combatting Forum meetings (SAPS) as well as accident statistics from Trafman system	Yes		
3	3	Poor road infrastructure in Elandspoor/Danville . both entry and exit points during peak times takes hours to either enter or exit the area. Large developments have taken place over the years with no consideration for increased congestion. General maintenance in the ward is also lacking	Intersection between WF Nkomo, Stracher and Rod Streets. Trans Oranje from Quagga Road beyond the tunnel always congested during busy times. Entrance and exit to the clinic on Trans Oranje is also a challenge in general. General maintenance in the ward.	Roads and Transport	Project feasible subject to budget availability.	No	To be priotised and included in the Pedestrian Safety Master Plan	Intersection Upgrade ITS & Traffic Engineering Section - Need proper understanding of the problem and where to consider approvments (Through Pedestrian Safety Masterplan)

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	4	Multipurpose sports facility Centre	In open area in the centre of Long More street, Salie street, First avenue and Maple street.	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.
1	4	Library	At the Orchard Ext 24 between Long more and Oberholzer Street at portion 547 of farm Hartebeeshoek No: 303-JR donated by the private company	Community and Social Development services	New Akasia Library in process. Project at tender stage.	Yes	In process	Gauteng Sport and Recreation Library Programme.
1	4	Rehabilitation /Crisis Centre	between Long More Street and Boshoff street	Health	through partnership with stakeholders, UP	YES	FY17/18	YES
2	5	Road safety near Schools	Dr van der Merwe; Dr Swanepoel	Community Safety	An evaluation will be done to see if point duty is required in the area during peak hours. Members can be deployed near schools upon request.	No	The erection of street signs and speed hump is not Metro Police competence but the responsibility of the Department of roads and transport	
2	5	Electricity	Dr van der Merwe; Dr Swanepoel and nearby streets	Utility Services	The maintenance of infrastructure form part of the Regional operations and programmes and will receive attention.	Yes	If the Streetlight maintenance issues has been reported on CRM it will be dealt with according to the Schedule for 2016/2017 or 2017/2018	
2	5	Upgrading of Stormwater system	Roads near Montana Hospital and near Bougainville	Roads and Transport	Stormwater Master plan with proposed drainage networks, priorities and costing available. Require specific location of sw problems.	No	Prioritised Stormwater masterplan for the area is in place. Clr. need to provide exact location of problems to allow investigation and possible addressing by the department.	Stormwater flooding and roads backlog eradication

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	6	Multy Purpose Centre for youth development and home based care	Dr Rebbone St and Mohlala	Community and Social Development services	Feasability of centre to be investigated in terms of norms and standards. .	No	Beyond current MTREF	Future IDP and capex budget priority.
6	6	Internal roads and side walks	Sethosa Zwane Ngoma, Malombo. Serema, Magagula Seluma Mtshweni,A Mabusela, Khumalo. Masango. Mokgotsi Dr Ribbone, Ronigwana. Phelong.F Mampane. Mofokeng	Roads and Transport	This Division is in the process of updating the pedestrian safety master plan	No	uncertain depends on future budget	Stormwater flooding and roads backlog eradication
6	6	Bridge	Between Siluma street, Gazama street next to J Kekana	Roads and Transport	this Division is in the process of updating the pedestrian safety master plan	No	uncertain depends on future budget	
3	7	Completion of community center	in the ward	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
3	7	Sports facilities to be completed	in the ward	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
3	7	Library and computer lab	in the ward	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
2	8	RDP Houses	Skampaneng and Suurman	Housing and Human Settlements	Themba View - 250 units - (CoT: Housing has budgeted in the 2017/18 FY for bulk water and sewer line connections). Skampaneng & Suurman: (CoT: Housing has made provision for the project in the 2017/18 financial year for internal water & sewer reticulation). PI	yes	Outer years	Upgrading in informal settlememnts

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
2	8	Water and Sanitation	Diloppe, Suurman, Skampaneng, unit 7, Tamboville and Temba ext.	Utility Services/Housing & Human Settlement	Some of the water reticulations were installed in 20% portion of Diloppe area but not sewer, Housing Department is responsible to formalise and finalise the installation of services. Temba Ext.1, some of the water and sewer reticulations were installed in 70% portion of Temba Ext 1 (Housing Department) the project is not yet finalised. Suurman water reticulation was installed but the area is not yet formalised and therefore awaiting for Housing Department to formalise and proceed with installation sewer. Tamboville is not yet a formalised township. Housing Department is responsible.	Partly		
2	8	Roads and Storm Water	All sections in ward 8	Roads and Transport	Project has been Initiated.	Yes	The Focus is first on the major stormwater systems contained in the masterplan which will affect the ward. This will allow the construction of minor stormwater systems and roads to be implemented.	712516 Flooding backlog: New Eersterust and Stinkwater.
1	9	Housing ( Mix Settlement)	in the ward	Housing and Human Settlements	Winterveld 3 phase 2- 100 houses in 17/18	Yes	Outer years	Upgrading in informal settlement

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	9	Formalization	in the ward	Housing and Human Settlements	Planning in progress	To be investigated	Outer years	Upgrading in informal settlement
1	9	Water and Sanitation	in the ward	Housing and Human Settlements	Planning in progress	To be investigated	Within the next 5 years	
6	10	Formalization of informal settlement	Ext 11 & Alaska	Housing and Human Settlements	Planning is in progress	To be investigated	Outer years	Upgrading in informal settlement
6	10	Roads at Ext 11	Ext 11	Housing and Human Settlements , Roads and Transport	Planning in progress	To be investigated	The area needs to be formalised first to enable the provision of basic services and roads and stormwater. Housing to provide comments on formalisation process.	To be determined.
6	10	Clinic	Ext 22	Health	City planned clinic in ward 97, which will cater ward 10	no	FY 20/21. On provision that budget would be appropriated for construction	YES
1	11	Multipurpose centre	In Ward 11	Community and Social Development services	Regional sport facility currently developed in Stinkwater. (Ward 14)	Yes	Beyond current MTREF	Multi-purpose sport facility currently in process in ward 13 under the Greening of Sport fields Programme.
1	11	Internal roads in Block HH & JJ&NN	Block HH, JJ & NN	Roads and Transport	Soshanguve Block NN forms part of the current capital projects in Soshanguve. Blocks HH and JJ are not part of the current program.	No	Depending on funding and focus areas for roads and stormwater services	712220: Flooding backlogs Soshanguve and Winterveldt Area

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	11	JJ Bridge	Block PP & JJ	Roads and Transport	Planning Division is in the process of updating the pedestrian safety master plan	No	uncertain depends on future budget	To be determined.
1	12	Formalisation of Letlotlo	Letlotlo	Housing and Human Settlements	Planning in progress	To be investigated	Outer years	Upgrading in informal settlement
1	12	Tarring of roads and development of stormwater systems	In ward	Roads and Transport	Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication
1	12	Clinic	Lebanon.	Health	city health department would formally engage GHD, for prioritisation of the required need. As currently the require is not on the city plans	no	the need would be realised on provision that, it has been budgeted for by provincial health department	
2	13	Electricity	Marikana - Soutpan	Utility Services	Details of the need are not sufficiently provided	No	No Bulk Supply to this area, Bulk infrastructure must be provided first - There is currently no budget allocation and the earliest the bulk infrastructure will be provided is from the 2020/21 FY	New Bulk Electricity Infrastructure
2	13	Water	Marikana - Soutpan & Diloppe	Housing and Human Settlements	Construction of bulk water and sewer lines for Soutpan currently in progress.	No	Construction of bulk water and sewer lines for Soutpan currently in progress.	Refurbishment of water networks and Backlog eradication
2	13	Roads and Storm Water	The entire Ward	Roads and Transport	Project have been Initiated	Yes	Budget requested for 2017/18 Financial year	712506 Flooding backlog: Matanteng
2	14	Multipurpose Centre	In the Ward	Community and Social Development services	Regional sport facility currently developed in Stinkwater. (Ward 14)	Regional sport facility currently developed in Stinkwater. (Ward 14)	Yes	Beyond current MTREF

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
2	14	Roads and Storm Water and crossing bridge	In the Ward	Roads and Transport	Project have been Initiated	Yes	Budget requested for 2017/18 Finacial year	712516 Flooding backlog Network 2D, New Eesterus Ext 2
2	14	Provision of title deeds.	In the Ward	Housing and Human Settlements	Total of 7100 properties to be registered at New Eesterus.	Yes (pending finalisation of opening township register)		
6	15	Building of clinic in Nelmapius ex 22,24,21,6	Ext 22,24,21 & 6	Health	Clinic is part of the department Megga projects	no	FY 19/20 on provision that budget is allocated to the contruction of the clinic	YES
6	15	Completion of roads in terms tar road and side caps ex24,21	Ext 24 & 21	Housing and Human settlements, Roads and Transport	Planning for the roads and minior stormwater has been done. Implementation is dependend on funding.	Gauteng Human Settlement project	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication
6	15	Formalisation of informal settlements	in the ward	Housing and Human Settlements	Planning in progress	To be investigated	Outer years	Greenfield development
6	16	Construction of Roads and Storm water	The entire Ward -74 Streets	Roads and Transport	Planning underway for Mamelodi Ext. 2, 4 and 5 for the upgrading of roads and minor stormwater systems. Implementation is dependend on WULA and funding.	Yes	Planning underway for Mamelodi Ext. 2, 4 and 5	Flooding backlog Mamelodi, Eersterus (Project 712223)
6	17	Stormwater drainage system	At various locations in the ward	Roads and Transport	Planning for the roads and stormwater has been done. Implementation is dependend on funding and WUIA approvals.	No	Depending on funding, Wula and focus areas for roads and stormwater services	Mahube valley stormwater drainage system ( project 711213)



Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	17	Roads	Boloa and Phahlane Str	Roads and Transport	Planning for the roads and stormwater has been done. Implementation is dependend on funding and WUIA approvals.	No	Depending on funding, Wula and focus areas for roads and stormwater services	Mahube valley stormwater drainage system ( project 711213)
6	17	Bridges	Morwe & Mahube ext 15 bridge and Stoffelpark	Roads and Transport		No	To be investigated	To be determined.
6	18	Multi -purpose Centre	Next to Buffer Zone	Community and Social Development services	Existing sport and library facilities within walking distance.	No	N/A	N/A
6	18	Tarred roads	At Boikgantshe and Nguni streets.	Roads and Transport		No	To be investigated	To be determined.
6	18	Storm water drainage	At sections 14, 16, 18 and Gardens	Roads and Transport	Stormwater Master plan with proposed drainage networks, priorities and costing available. Require specific location of sw problems.	No	Prioritised Stormwater masterplan for the area is in place. Clr. need to provide exact location of problems to allow investigation and possible addressing by the department.	Flooding backlog eradication
1	19	Roads and Storm Water	Slovoville, Ext 2 and Ext 3	Roads and Transport	Project needs to be initiated to address the Issue	No	Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.	No

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	19	Electrification.	Most areas in the ward have outstanding electrification issues	Utility Services	Within the Tshwane supplied area, Energy and electricity Division is currently rolling out the electrification of 1350 houses in Ward 19, Winterveldt Ext 3/4. In the portion which is supplied by Eskom, Eskom has been requested to prioritise the electrification of houses in Ward 19	No	In the Tshwane supplied area, the request is being addressed in the current year. For the Eskom supplied area, Eskom awaits for the Housing challenges to be resolved before they can prioritize the electrification request	Electricity-for-All and Eskom Electrification Programme
1	19	Sports facility	Identified soccer field to be made multi purpose sports centre	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.
1	20	Roads and Stormwater Drainage . The problem has been there for more than 25 years	Block U in Ward 20	Roads and Transport	Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	20	Parks - Recreational	Block C and S, Mabopane	Environmental and Agriculture Management	To be investigated	No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables.	None
1	20	Completion of tarring of roads at block D	Block D, Mabopane	Roads and Transport	Roads & Sw services will be provided by Housing and Human Settlement Department with township formalisation	No	Outer years	
1	21	Tarred Roads and Storm water drains including sidewalks.	Block A,B1 ,B2	Roads and Transport	Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication
1	21	Sports Multipurpose Centre.	Block X	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	21	Public Parks and maintenance of Wetland	B1,B2 and Block A	Environmental and Agriculture Management and Regional Operations and Coordination	To be investigated	No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables. Maintenance forms part of the Regional operations and programmes and will receive attention.	None
1	22	Tarring of Roads and installation of Storm Water pipes and drains	In Block U ext, Block U, Unit R and Ga-tsebe.	Roads and Transport	Stormwater Master plan with proposed drainage networks, priorities and costing available. Require specific location of sw problems.		The area needs to be formalised first to enable the provision of basic services and roads and stormwater. Housing to provide comments on formalisation process.	To be determined.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	22	Park	in Block U ext empty space	Environmental and Agriculture Management	To be investigated	No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables.	None
1	22	Recreational Facility	in Block U ext empty space	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.
6	23	Proper roads.	The entire Ward	Roads and Transport	Stormwater Master plan with proposed drainage networks, priorities and costing available. Require specific location of sw problems.	No	To be investigated	To be determined.
6	23	Underground Cables.	The entire Ward	Utility Services	Details of the need are not sufficiently provided		Maintenance of infrastructure form part of the Regional operations, But in a case of construction of new projects Energy and Electricity Division is guided by the approved Master Plan and allocation of Budget to address the issue raised	

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	23	Sewarage and drain system to be upgraded.	The entire Ward	Utility Services	Department busy drafting a 3 year Sewer Pipe Replacement Tender to replace various redundant sewers throughout Tshwane. Sewer lines have already been identified for replacement.	No	Within the next 2 years.	Replacement of Sewers (711404)
1	24	Electricity	The entire Ward	Utility Services	Details of the need are not sufficiently provided		Maintenance of infrastructure form part of the Regional operations, But in a case of construction of new projects Energy and Electricity Division is guided by the approved Master Plan and allocation of Budget to address the issue raised	
1	24	Tarring of roads	The entire Ward	Roads and Transport	Feasibility to be established and ranking in a roads backlog prioritisation system in proclaimed townships to be determined.	No	To be investigated	To be determined.
1	24	Skills Development Centre	in the ward	Economic Development and Spatial Planning	The Department is currently running two skills centres in Region 1 focusing on the training of youth in automotive related skills and another one in partnership with Gauteng Department of Economic Development focusing on tourism skills. A survey will undertaken to understand skills needs in the areas in addition to tourism and automotive related skills	No	2018/19	Skills Development

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	25	Roads and Stormwater at block W, T, V, V ext, PP3 and T2 buffer.	at block W, Block T,V,V ext,PP3, and T2 Buffer	Roads and Transport	Project for Block W has been initiated. Detail designs for Block W have been completed	yes	Budget requested for 2017/18 Finacial year	711164 Block W - Stormwater Drainage Phase 1
1	25	Unemployment is high in the ward. Utilisation of 1266 block T for business purposes	1266 block T, Boikhutsong Centre,	Economic Development and Spatial Planning	Drafting of reports to Mayoral committee and Council for approval. Advertising in terms of relevant legislation. Request proposals from developers and business for an envisaged project that can create job opportunities and commencing with the City of Tshwane Supply Chain Management process	No	The processes can take more than three years to conclude as it is legislated and the requirements can need more studies to be conducted before the rezoning of the erf for business purposes.	Not applicable
1	25	Boikhutsong Clinic to small to accommodate the clients.	Erf 628 Block T to be donated to the province to build the new clinic.	Health	Gauteng provincial Health department currently attending to contruction of the clinc	yes	FY 19/20 . Provincial government is currently constructing the cliinic with untocipated completion in 20119/20	YES
1	26	Roads need to be tarred	The entire Ward	Roads and Transport	Feasibility to be established and ranking in a roads backlog prioritisation system in proclaimed townships to be determined.	No	To be investigated	To be determined.
1	26	RDP Houses needed unfinished houses to be completed	Block KK ,R and S	Housing and Human Settlements	Block KK - 0 houses in 17/18	To be investigated	100 Houses in 19/20 F/Y	Upgrading in informal settlememnts
1	26	Allocation of land or stands to people and remove informal settlement	Stand 429, Block KK.	Housing and Human Settlements	The stand has been allocated and registered back in year 2015. Title deed has also been issued int his regard.	Yes		
1	27	RDP houses	Block KK	Housing and Human Settlements	Block KK - 0 houses in 17/18	To be investigated	100 Houses in 19/20 F/Y	Upgrading in informal settlememnts

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	27	Plot 429 informal settlement	next to school	Housing and Human Settlements	Planning in progress	To be investigated	Outer years	Upgrading in informal settlements
1	27	Roads and Storm Water drainage system. 1	The entire Ward	Roads and Transport	Project for Block W has been initiated. Detail designs for Block W have been completed	yes	Budget requested for 2017/18 Financial year	711164 Block W - Stormwater Drainage Phase 1
6	28	Roads and Storm water drainage VD Hope Day Care and VD Agnes Chidi.	VD Hope Day Care and VD Agnes Chidi.	Roads and Transport	Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication
6	28	Park and Recreational Facility at VD Agnes Chidi Primary school	Agnes Chid Primary School	Environmental and Agriculture Management		No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables. Maintenance forms part of the Regional operations and programmes and will receive attention.	None
6	28	Street names Hope day care VD.	in the ward	Regional Operations and Coordination	The matter will be clarified between the Councillor and the Region	No	To be investigated	To be determined.



Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	29	Roads and Storm water system the entire ward.	The entire Ward	Roads and Transport	Soshanguve Blocks NN and IA form part of the current capital projects in Soshanguve.	No	Depending on funding and focus areas for roads and stormwater services	712220: Flooding backlogs Soshanguve and Winterveldt Area
1	29	Rehabilitation of old Sewer and water system	Block F West and AA	Utility Services	The water network replacement in block AA has been completed, a portion of block F was done. The rest of block F should be done within the next 5 years if sufficient budget is made available. Rehabilitation of sewer network will be included on the program for the coming financial years, the Department is busy drafting a 3 year Sewer pipe replacement Tender.	No	Water replacement within the next 5 years	Upgrading of water networks Soshanguve Block AA and F (710026SOSH), Refurbishment of water networks and Backlog eradication and Replacement of sewers(711404)
1	29	Low cost Houses	Block IA,NN,EW and Winterveldt	Housing and Human Settlements	Currently finalising roads and storm water project in Mabopane EW	Yes	Outer years	Upgrading in informal settlements
1	30	Roads and Storm Water	Zone 04 ext and Ga-Rankuwa view	Roads and Transport	Planning for the roads and minor stormwater in zone 4,5,ext and Ga-Rankuwa view has been done. Implementation is dependend on funding.	No	Designs have been done. New appointment needs to be made subject to availability of funds	711863 Internal Roads: Northern Areas
1	30	Health clinic in either ext 23 or 25	Ext 23 or 25 in ward 30	Health	Clinic planned as part of the citys magga project	No	FY 20/21 On provision that budget would be appropriated for construction	YES

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	30	Street and high mass lights	Ga-Rankuwa view , Ext 17, 20, 23, 24 and 25	Utility Services	Details of the need are not sufficiently provided		Maintenance of infrastructure form part of the Regional operations, But in a case of construction of new projects Energy and Electricity Division is guided by the approved Master Plan and allocation of Budget to address the issue raised	Public Lighting Programme
1	31	Roads, completion of outstanding road in ward 31	In the ward	Roads and Transport	Stormwater Master plan with proposed drainage networks, priorities and costing available. Require specific location of sw problems.	No	Designs have been done. New appointment needs to be made subject to availability of funds	711863 Internal Roads: Northern Areas
1	31	Solar Geysers	in the ward	Utility Services	The installation of Solar geysers have been taken over by National Department of Energy. The matter will be taken up with the DOE	Solar Geysers projects were the DOE's projects		
1	31	Maintanace of Sanitation.	Entire Ward 3	Regional Operations and Coordination	Regions are responsible for maintenance, if the problem is very huge that replacement /upgrarading are required, a request must be sent by the Region to include the project on the coming financial year planning.	No	Planning Section will await for the request from the Region.	
1	32	Multi-Purpose Centre	Zone 7, around sport ground	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.
1	32	24 Hour Clinic	Extension 21-Sports Ground	Health	Clinic planned as part of the citys magga project	no	FY 20/21 On provision that budget would be appropriated for construction	

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	32	Sports Complex- Mini Stadium, Tennis court, Netball facility	Zone 8, before Circle next to the ground	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.
1	33	Street lights	in the ward	Utility Services	Details of the need are not sufficiently provided		Maintenance of infrastructure form part of the Regional operations, But in a case of construction of new projects Energy and Electricity Division is guided by the approved Master Plan and allocation of Budget to address the issue raised	Public Lighting Programme
1	33	Sports and recreational facilities including parks	in the ward	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.
1	33	Library	in the ward	Community and Social Development services	Existing library in Block H.	No	N/A	N/A
1	34	Roads Block L, L ext. and H ext.	Soshanguve Block L, L ext. and H ext.	Roads and Transport	Stormwater Master plan with proposed drainage networks, priorities and costing available. Require specific location of sw problems.		In the MTREF	
1	34	Cetral Residents housing challenge	Block H Soshanguve, Aubrey Matlala road	Housing and Human Settlements	To be investigated	No	Outer years	Rezoning
1	34	Multipurpose centre to be build in Block H and memorial park in F west	Block H and Block F west	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
1	35	Buitekant Road to be upgraded.	Buitekant Road.	Roads and Transport	Availability of Budget and Service Providers	Yes	30-Jul-18	712545

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	35	Multipurpose Centre.	Erf 286.	Community and Social Development services	Feasability study to be conducted. Future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.
1	35	Block M Ext Internal roads (tarred) .	The entire Block M Ext.	Roads and Transport	Planning underway for Block M-Ext. Implementation is dependend on funding.	No	Depending on funding and focus areas for roads and stormwater services	710143: Major stormwater systems in Klipkruisfontein
1	36	Tarring of internal roads	Block L, L ext. and M ext.	Roads and Transport	Planning underway for Block M-Ext. Implementation is dependend on funding.	No	Depending on funding and focus areas for roads and stormwater services	710143: Major stormwater systems in Klipkruisfontein
1	36	Street Lights and high mast lights	Street lights in Block L and M ext. and high mast light in block L and M	Utility Services	Details of the need are not sufficiently provided		Maintenance of infrastructure form part of the Regional operations, But in a case of construction of new projects Energy and Electricity Division is guided by the approved Master Plan and allocation of Budget to address the issue raised	Public Lighting Programme
1	36	Philip stadium ( 2nd phase)	Block L	Community and Social Development services	Prioritisation and future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.
1	37	Roads and Storm Water	Ext 3 & 4	Roads and Transport	Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication
1	37	Clinic	Ext 10,12 & 13	Health	City planned the contruction of the clinic in EXT 10,12,13	No	FY 19/20	YES
1	37	Formalization of Squatter Camps.	Ext 3 Marry Me	Housing and Human Settlements	Awaiting approval of the land swap agreement.	No	Outer years	Upgrading in informal settlememnts

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	38	Potholes and high volume of water during rains	From Sibande until Ntsieng Street	Roads and Transport	Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication
6	38	Criminal activities at the hostels and around the entire area	From Sibande until Ntsieng Street	Community Safety	Members are deployed on a daily basis according to information received from the Station Crime Combatting Forum meetings (SAPS) as well as accident statistics from Trafman system	Yes		
6	38	Sidewalks	Section E and Naledi	Roads and Transport	Planning Division is in the process of updating the pedestrian safety master plan	No	To be priotised and included in the Pedestrian Safety Master Plan - Pedestrian Safety Master Plan	Pedestrian Safety Master Plan/No funding available for 2017/18
1	39	Tarred Roads	Ext 1,2,14 and Marius	Roads and Transport	Feasibility to be established and ranking in a roads backlog prioritisation system in proclaimed township to be determined	No	To be investigated	To be determined.
1	39	RDP Houses and completion of housing project in the ward.	Ext 1, 14 and new areas in the ward	Housing and Human Settlements	Gauteng Human Settlements plannd to construct 100 houses.	Yes		Upgrading in informal settlememnts
1	39	Electricity	Ext 14 and other parts of the ward	Housing and Human Settlements	The double packing has not yet been resolved although stands have been allocated. The affected people are high slary earners while others have benefitted before.	No	Outer years	Upgrading in informal settlememnts
6	40	Formalization with full infrastructure.	Phomolong ,Phase 5, Ext 6	Housing and Human Settlements	Planning for Erf 34041 currently in progress. Transnet land transferred to the CoT. Planning process to start in 2017/18 financial year.	Yes		To be determined.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	40	Storm Water drainage system and roads	Ext 6 phase 5, Mahube and Ext 20	Roads and Transport	Stormwater Master plan with proposed drainage networks, priorities and costing available. Require specific location of sw problems.		In the MTREF	
6	40	Recreation Facility	In the Ward	Community and Social Development services	Prioritisation and future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.
6	41	Speed/Traffic calming measures, general lawlessness on the roads.	Water Meyer & Pretoria Road.	Roads and Transport	Traffic Calming Measures cannot be implemented on this Class Road, Lawlessness on road, Metro Police function.	No	Metro Police	Metro Police
6	41	Electricity Infrastructure. All substations need to be upgraded and maintained.	Alltations sub stations in Ward 41; especially Brandweg/Willows substations	Regional Operations and Coordination	The issue of maintainance is done in the region. More information is required to analyse the problem effectively.			

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	41	Upgrading of Parks	Voortrekker Park, Pretoria road./BMX Park-Meyerspark	Environmental and Agriculture Management and Regional Operations and Coordination	To be investigated	No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables. Maintenance forms part of the Regional operations and programmes and will receive attention.	None
3	42	Traffic calming measures in the ward due to increase traffic, bottlenecks and speeding	All suburbs in Ward 42 and traffic patterns changes in one zone directly impacts adjacent zones.	Roads and Transport	Priorities are on Masterplan for the area, based on priority point and funding approved, priorities will be implemented	Yes, partly		710229 Traffic Calming and Pedestrian Safety in Tshwane
3	42	Stormwater canals to be opened and maintained	A long term plan is required for Ward 42- canals but an urgent priority is the section from Waterkloof Rand Park in Rigel Str through Neptune Str into the valley.	Roads and Transport	Stormwater Master plan with proposed drainage networks, priorities and costing available. Require specific location of sw problems.		In the MTREF	

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	42	Upgrading and development of Bruinslich Park for the benefit of both the local and greater Tshwane community, including the erection of a security fence.	Bruinslich Park is located West of Crown Str between main and Julious Jeppe Str in Waterkloof.	Environmental and Agriculture Management		No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables.	None
6	43	Housing	in the ward	Housing and Human Settlements	Description of issues raised not clear, clarity required.	No	Outer years	Upgrading in informal settlement
6	43	Silverton electricity infrastructure	in the ward	Utility Services and Regional Operations and Coordination	Electricity capacity is sufficient in the area of Silverton, the maintenance of electricity infrastructure is done by the regions. It will also be appreciated to know the address or block that needs attention. Maintenance forms part of the Regional operations and programmes and will receive attention.	To be investigated		
6	43	Taxi rank	in the ward	Roads and Transport	A site for the taxi rank needs to be agreed upon with all stakeholders before development.	yes	To be investigated	To be determined.



Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	44	Traffic calming	Atterbury Road	Roads and Transport	Traffic Calming Measures cannot be implemented on this Class Road, Lawlessness on road, Metro Police function.	No	Metro Police	Metro Police
6	44	Taxi Management Strategy	Main Roads-Strategic Points	Roads and Transport	The strategy will form part of the CIP's Public Transport Operation Strategy review process	yes	To be investigated	To be determined.
6	44	Recycling	in the ward	Environmental and Agriculture Management	It can be addressed as part of the roll out of waste separation at source when operating budgets for implementing this program are allocated to the Department	No	In can be addressed in 2018/19 if budget is made available. In 2017/18 the target is Regions 1, 2, 3 and 4 if the requested funding is allocated	Waste separation at source and establishment of waste buyback centres
6	45	Upgrade of Garsfontein Road for better traffic flow as well as informal trading facilities	Along length of Garstfontein road	Roads and Transport	Updating of Preliminary Design is in progress	No	Unknown	Main roads
6	45	Traffic calming measures in the vicinity of the schools along Jacqueline Drive and Anton van Wouw Street.	in the ward	Roads and Transport	Priorities are on Masterplan for the area, based on priority point and funding approved, priorities will be implemented	Yes, partly		710229 Traffic Calming and Pedestrian Safety in Tshwane
6	45	Creation of a structure to facilitate a grey water resource management system.	in the ward	Utility Services	Water and Sanitation Department does not have this kind of system in place as it is mostly used for private developments for irrigation purpose.	No	Not applicable	

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	46	Accessible side walks and expansion of roads	Mayor roads especially near scholls and shopping centres	Roads and Transport	Planning Division is in the process of updating the pedestrian safety master plan	No	Uncertain, depends on future budget allocation	To be determined.
6	46	Upgrade of electrical infrastructure	Sub stations and feedings systems	Utility Services	More information is required to analyse the problem effectively.		Maintenance of infrastructure form part of the Regional operations, But in a case of construction of new projects Energy and Electricity Division is guided by the approved Master Plan and allocation of Budget to address the issue raised	
6	46	Increase public safety; Install Cameras, Remove vagrants and homeless people; Visible Policing	Major roads connecting shopping areas and parks i.e. January Masilela, Atterbury, Glenwood, Lynwood,	Community Safety	Homelessness is not a crime per se, however joint inspections and operations will be planned and conducted with Region 6 and other role-players (eg: Social Development), intersection traders – as resources will allow it.	Yes		
6	47	Upgrade of water network in Elardus Park, Wingate Park, and Moreletta Park	in the ward	Utility Services	Replacement of the critical parts will start in 2017/18.	Yes		Replacement of worn-out water network pipes(710026)
6	47	Investigate and Redevelop the Garstkloof landfill site into much needed sport facility.	in the ward	Community and Social Development services	Prioritisation and future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.
6	47	Sidewalks at Laerskool Elardus Park	in the ward	Roads and Transport	Planning Division is in the process of updating the pedestrian safety master plan			

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
4	48	Mooiplaas settlement has been allocated 731 houses and we are in the process to re allocate. This project is still not complete to move squatters to decent living circumstances- move to Olievenhoutbosch not finalized. There is no proper infrastructure resulting in serious social, health issues. Laezonia Informal settlement - There is no clarity in finalizing the agreement by CoT to relocate the settlement	Mooiplaas, Olievenhoutbosch and Laezonia	Housing and Human Settlements	758 stands in Olivenhoutbosch X60 has been allocated to Mooiplaas residents. CoT: Housing currently constructing water and sewer reticulation and top structures (for qualifying beneficiaries)	Yes		
4	48	The upgrade of Raslouw sub station	Raslouw, Monavoni, Mooiplaas, Raslouw, Stoneridge and Celtisridge	Utility Services	Construction of New Monavoni 132/11kV, 40MVA substation to commence in July 2017. Raslouw primary substation currently being repaired	Yes		New Bulk Electricity Infrastructure
4	48	To upgrade the current sewerage plant in Sutherland Ridge to the benefit of the community and to stop leakages in the river	Sunderland Ridge WWTW, Affecting Hennops river due to leakage of sewerage into river	Utility Services	Sunderland Ridges WWTW - New 30ML BNR		2018/19	Sunderland Ridges WWTW - New 30ML BNR(710411A2)

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
2	49	Roads and Storm water	In all sections	Roads and Transport	Project needs to be initiated to address the Issue	No	Feasibility study needs to be conducted to determine the way forward	
2	49	Formalization of informal settlements	Kanan ext 10 and 4, Marokolong and Wahlmansdal	Housing and Human Settlements	Walmanstall owned by National Government and COT does not have a mandate to initiate a formalization process. Water & Sanitation (COT) previously initiated a formalization process for Marokolong. New appointments will have to be made to re-initiate the formalization process.	Dependant on budgetary provision & appointment of service providers.	Dependant on budgetary provision & appointment of service providers.	To be determined.
2	49	Infrastructure	In all sections	Utility Services	Details of the need are not sufficiently provided	No	Maintenance of infrastructure form part of the Regional operations, But in a case of construction of new projects Energy and Electricity Division is guided by the approved Master Plan and allocation of Budget to address the issue raised	
2	50	Upgrade of ward 50 reticulation infrastructure. Infrastructure is old and has exceeded its lifespan	Sinoville, Annlin and Worderboom	Utility Services	This project is currently not prioritised but it will be included on the planning of the next coming financial years.	No	Within the next coming 5 years	Replacement of worn-out water network pipes
2	50	Relocation of Metro Police from a rented facility to a permanent Council built facility	Sinoville, Annlin and Worderboom	Community Safety	Budget submission for 2019/20 and 2020/21.	No	Beyond current MTREF	Rented library facility to be replaced. Recreational centre also supported.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
2	50	Permanent library facility that has both a study and recreational hall to be built on Council premises	Sinoville, Annlin and Worderboom	Community and Social Development services	Budget submission for 2019/20 and 2020/21.	No	Beyond current MTREF	Rented library facility to be replaced. Recreational centre also supported.
3	51	High crime area next to the Mall need to be developed with an economic facility.	In Mankopane	Economic Development and Spatial Planning	Matter will be investigated in terms of Zoning, ownership and possible development.		Future MTREF	
3	51	Traffic circle to be redeveloped and highmast lights required	Tiale & Sehlogo Streets	Environmental and Agriculture Management	To be investigated		The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables.	None

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	51	Upgrading of Moroe Park into a user friendly facility	Moroe Park	Environmental and Agriculture Management and Regional Operations and Coordination	To be investigated	No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables. Maintenance forms part of the Regional operations and programmes and will receive attention.	None
3	52	Urgent need for high mast lightning at the Mootspruit especially in Villieria	Mootspruit especially in Villieria	Utility Services	The request will be investigated and included in the 2017/18 Public Lighting Programme	Yes	2017/2018	Tshwane Public Lighting Programme
3	52	Up grading of the entire Codonia Street in Waverley Centre business area	in the ward	Roads and Transport	A traffic feasibility study needs to be conducted first.	No	To be investigated	To be determined.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	52	Traffic calming – various streets in Waverley – warrants traffic calming Collins/Fry intersection, Collins/Tramper intersection, Walter a venue, Collins avenue.	in the ward	Roads and Transport	Implemented	N/A	N/A	N/A
3	53	Littering / recycling	All suburbs in the Ward	Environmental and Agriculture Management and Regional Operations and Coordination	Will form part of waste collection by regions and recycling initiatives will be investigated	yes	N/A	Reagional waste collection services
3	53	Road Markings	The entire Ward	Roads and Transport and Regional Operations and Coordination	Maintenance forms part of the Regional operations and programmes and will receive attention.	No	To be investigated	To be determined.
3	53	Turning Aarrows- Problematic Intersection	15th Avenue; Pieneef	Roads and Transport	Planning Division has planned queue length and intersection requests for right turns, timings adjustments and new traffic signals.	No	uncertain, depends on future budget allocation	Traffic Signals Priority List.
3	54	Developmet of Green Belt spruit area - Mootspruit South and North	Spruit area between Mansfield Avenue and Freites road	Environmental and Agriculture Management	It can be addressed as part of riverine and wetlands management program if the requested operating budget is allocated.	No	In can be addressed in 2017/18 if the budget requested by the Department is allocated	Riverine and wetlands management program
3	54	Ermegency Shelters to be establised	Foley and Low Building and vacant municipal buildings in the wards	Community and Social Development services	This matter is being investigated and form part of the overall support that the City plan to institute to support the hoemless		In the future MTREF	

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	54	Gab Housing Project with a safe house for emergencies	On vacant CoT properties	Housing and Human Settlements	Emergency shelters function has been transferred to Department of Social Development.	No	in the outer years	Upgrading in informal settlements
3	55	Road in Malie street, Booyesen, Erna street, Andeon to be paved	Westview extensions	Roads and Transport	To be investigated. Road pavement structure has reportedly deteriorated.	No	To be investigated	Links to Road rehabilitation/reconstruction.
3	55	Infrastructure (RDP houses)	In the Ward	Housing and Human Settlements	Booyesen Ext 4 bulk infrastructure planned for 2017/18.	Yes		Infrastructure upgrade
3	55	Infrastructure development (Water and Electricity) in informal settlements	Gomora, Malusi and Plot 30 and Zama Zama	Housing and Human settlements, Utility Services	Gomora: land owned by Gauteng Human Settlement. Planning in progress.	Yes		Upgrading of informal settlements



Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	56	Upgrading of Park c/o Middle and Tram Street (Removal of rubble, grassing and trees required)		Environmental and Agriculture Management and Regional Operations and Coordination	Maintenance forms part of the Regional operations and programmes and will receive attention.	No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables. Maintenance forms part of the Regional operations and programmes and will receive attention.	None
3	56	Provision of additional security Hatfield CBD		South African Police Services	In the Process to be followed -up			
3	56	Upgrading of Brooklyn Circle and establishment of Permanent provision for a Taxi Holding Bay		Roads and Transport	Brooklyn Circle to be upgraded via developers contribution. An agreement(as part of the sale of Bronkhorst road) has been signed between the City and Brooklyn mall for the mall to provide a holding area for 38 minibus staxis, pending finalisation of the sales agreement .	Yes	Not applicable	Not applicable

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
4	57	Electrical infrastructure is between 20 and 25 yrs old. Maintenance is 72% behind. There are frequent power failures when it rains and the ward has had main feeder cable and ring failures that effect residents and businesses.	The entire Region 4	Regional Operations and Coordination	Maintenance forms part of the Regional operations and programmes and will receive attention.	Not sure	All depends on the budget allocated for maintenance and if/when the Energy and Electricity Department allocate CAPEX funds for refurbishment	Various aerial bundle projects and replacement of dangerous and obsolete equipment are requested on the wish list that is sent yearly to the Energy and Electricity Department but regions are dependant on their grace.
4	57	There are numerous leaks and water being cut off because the Infrastructure is old and has not been maintained. The Asbestos cement piping is between 40-45 years old and the stainless steel pipes from the water tower are corroding. Numerous sewer leaks as well	Most of the leaks are from the South and South Eastern side of the ward. Region 4 water and sanitation can give the exact where the piping is like wet cardboard and where the sewer system is edging of old age.	Utility services and Regional Operations and Coordination	1. The Operations and Maintenance teams replace full length of burst asbestos pipes with PVC pipes instead of doing a point repair on affected sections as and when these old pipes fail in all wards including ward 57, The galvanised steel connection pipes are very old as indicated in the report and these are also replaced with HDPE pipes as and when required 2. The Operations and Maintenance teams replace full length of failed earthenware/clay pipes with PVC pipes when doing point repair on affected sections of the sewerlines as and the teams unblock reported blockages and do CCTV inspections and reactive maintenance on		The replacement and upgrading of old infrastructure is CAPEX and will be referred to the Infrastructure provision department	CAPEX PROJECTS 1. The Infrastructure provision department have a pipe replacement tender active which started in 2016/17 March 2017 to replace portions of the following streets in Ward 66 and 78 at Hennopspark: Maroela, Acacia and Tambotie and in Clubview: Lyttonton between Von Willich and Leyden street Durham street, The line department Infrastructure provision will plan for 2017/18 which will in priority address critical
4	57	Traffic congestions and delays.	Gerhard, Glover, West and Von Wielligh Streets, Bridge in Rabie crossing the Hennops needs to be raised	Roads and Transport	Planning Division has planned queue length and intersection requests for right turns, timings adjustments and new traffic signals.	N	when funds become available	

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	58	Civic Center - Community Multi-purpose Centre	Phillip Nel	Community and Social Development services	No land available.	No	n/a	n/a
3	58	Pretoria Central is the challenge of accomodation	RNS,Foundation in Madiba Street, 125	Housing and Human Settlements	Currently CoT: Housig busy with Townlands social housing construction.	yes		Affordable Rental Accomodation.
3	58	Accomodation challenge in Melgesidic	No 3 Annie Botha Str, Riviera	Housing and Human Settlements	The matter is being investigated to determine the way forward wrt the Melgisedek building		In future MTREF	
3	59	Crawford college perimeter - Traffic calming and control around the school	Cnr Sibeus & Lategan	Roads and Transport	Allready addressed. - Traffic calming and 40km/h signs implemented.	Yes		
3	59	Close the Island on Florence Rebeiro Cnr of Florence Rebeiro & Wenning Stop Street/s at Engelenburg and traffic calming measures	Bronkhorst and Van Wouw and Herbert Baker streets	Roads and Transport	No - funds can be available through development contributions	To be investigated	To be determined.	
3	59	Traffic calming and speed bumps and additional stop signs	Berea Street, Ormonde street to Mears Preller	Roads and Transport	This Division is in the process of updating the pedestrian safety master plan	No	Uncertain, depends on future budget allocation	Pedestrian Safety Masterplan
3	60	Low-cost housing for Pretoria West	Pretoria West	Housing and Human Settlements	Currently CoT: Housig busy with Townlands social housing construction.	Yes	in the outer years	Affordable Rental Accomodation.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	60	Socio economic benefits	The entire Ward through training and workshops	Community and Social Development services	Feasability of centre to be investigated in terms of norms and standards.	No	Beyond current MTREF	Future IDP and capex budget priority.
3	60	Parks - Clean up and add new facilities/equipment	Pta West	Environmental and Agriculture Management and Regional Operations and Coordination	Maintenance forms part of the Regional operations and programmes and will receive attention.	No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables.	None
4	61	Relocation of Itireleng -RDP houses for ward 61 / Blocks	Itireleng informal settlement sport ground, mustard, umber, emerald, jancinth, onyx, primrose, brolon str; white blocks	Housing and Human Settlements	Itireng informal settlement situated on dolomatic land and cannot be developed. An alternative relocation area will have to be identified.	Dependant on budgetary provision & appointment of service providers.	Dependant on budgetary provision & appointment of service providers.	Upgrading in informal settlementmnts
4	61	CCTV Camera in Ward 61 boundry wall Ext 3	Laudium CBD and Erasmia CBD; Bengal and Jaj Str for Wall	Community Safety	The curent scope of the CCTV expansion project does include the areas mentioned, however this may be reviewed once additional funding has been made available.	No	Further funding needs to be made available for the expansion of the project	CCTV expansion project

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	62	Upgrade of storm water drainage and sewerage system.	Entire Ward	Roads and Transport	Planning for the minor stormwater has been done. Implementation is dependent on funding.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding backlog eradication
3	62	Upgrading of Lucas Morepe grand stand and seats	Lucas Morepe stadium	Community and Social Development services	Operational Regional budget submission.	To be investigated	Beyond current MTREF	Future IDP and capex budget priority.
3	62	Community Library	Mboweni School Open Space	Community and Social Development services	New Library in process by Gauteng Sport and Rec	Yes	Project at tender phase currently.	Gauteng Sport and Recreation Library Programme.
3	63	Housing	Near and Around Hostel in Atteridgeville	Housing and Human Settlements	Atteridgeville Backyard rooms- 500 in 17/18. Planning in 2017/18 for Saulsville hostel redevelopment.	Yes (planning)	in the outer years	Upgrading in informal settlements
3	63	Electrification and Sanitation in Hostels	old Hostel and Shacks in Greenaker	Utility Services	No funding for water problem, Energy and Electricity has completed the electrification of Melusi 2 Area. The electrification of Melusi 1 awaits the finalisation of the township layout, pegging of the area and settlement of shacks in line with the approved layout by Housing.	No	Bulk can be provided as soon as Housing submit the request to Energy and Electricity Division	Upgrading/Strengthening Of Existing Networks
				Housing and Human settlements	Refurbishment of Saulsville hostels ablution blocks in 2017/18 financial year.	Yes	Bulk can be provided as soon as Housing submit the request to Energy and Electricity Division	Upgrading/Strengthening Of Existing Networks

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	63	Park	Mosopha and WF Nkomo Street	Environmental and Agriculture Management	To be investigated	No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables.	None
4	64	Water Pipes and electricity	in the ward	Utility Services	This area is busy with new development, the request is not clear on what exactly are referred to.	No	As soon as the sufficient information is provided, the request will be included on the planning for the coming financial years.	
4	64	Storm water drainage	in the ward	Roads and Transport	Clr. need to provide exact location of problems to allow investigation and possible addressing by the department.	No	Will be investigated after feedback from Clr.	Capital Budget programme
4	64	Roads	in the ward	Roads and Transport	Clr. need to provide exact nature and location of problem.	No	To be investigated	To be determined.
4	65	Traffic Calming in Highveld	Highveld; Logan Rd, Traffic circle, Newark Road	Roads and Transport	Planning Division is in the process of updating the pedestrian safety master plan	No	Uncertain, depends on future budget allocation	Pedestrians Safety Master plans -Traffic calming

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
4	65	Doringkloof - Pedestrian walk way	Sonja Str between Jean Avenue & Aster	Roads and Transport	Planning Division is in the process of updating the pedestrian safety master plan	No	Uncertain, depends on future budget allocation	Pedestrians Safety Master plans -Traffic calming
4	65	11 KV Power cable 30-40 years old	Jan Smuts Rd, Gem Village Irene, Doringkloof AH	Utility Services	The information is not clear. Which transformers in the area?			
4	66	The traffic flow during peak hours	Corner of Ashwood and Wierda Rd ,Club View, Centurion	Roads and Transport	Planning Division has planned queue length and intersection requests for right turns, timings adjustments.	No	when funds become available	Pedestrians Safety Master plans -Traffic calming
4	66	Frequent cable theft	Hot spot streets: Meteor, Nadin,Mydal,Godiva,Berenicia, Gulfoss,Fjord,Aland and Olden	Community Safety	Members are deployed on a daily basis according to information received from the Station Crime Combatting Forum meetings (SAPS) as well as accident statistics from Trafman system	yes		
4	66	Upgrading of Sports facilities: Valhalla Tennis Club	Broadway East Str, Valhalla	Community and Social Development services	Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
6	67	Development of the Stadium	in the ward	Community and Social Development services	H.M. Pitje Stadium allocated funding in 2017/18 financial	Yes	Beyond current MTREF	High Departmental priority for capex allocation.
6	67	Recreational Facilities	in the ward	Community and Social Development services	H.M. Pitje Stadium allocated funding in 2017/18 financial			High Departmental priority for capex allocation.
6	67	Internal Roads	in the ward	Roads and Transport	Feasibility to be established and ranking in a roads backlog prioritisation system in proclaimed townships to be determined.	No	To be investigated	To be determined.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	68	Multipurpose sportsground (It must have a hall, sports grounds, park and skills center)	at Makhaza and Mphalene	Community and Social Development services	Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
3	68	Stormwater drainage	Extension 06, 07 and 17	Roads and Transport	Planning for the roads and minor stormwater has been done. Implementation is depended on funding.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication
3	68	Library	Fourth and Modjadji Streets	Community and Social Development services	Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
4	69	Infrasstructure, upkeep and upgrade with specific reference to water pipes, electricity and council	in all extentions of Eldoraigue and Wierdapark X2.	Utility Services	This project is currently not prioritised but it will be included on the planning of the next coming financial years.	No	Within the next coming 5 years	Replacement of worn-out water network pipes
4	69	Establishing a (City Improvement District) in special rated areas, focusing on public safety and beautification	in all extentions of Eldoraigue and Wierdapark X2.	Economic Development and Spatial Planning	Individual applications in terms of the City Improvement District Act/By-law must be submitted to be considered	Yes	Not applicable	Not applicable



Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
4	69	Growth and maintenance of nodes to ensure that traffic in the area flow with specific reference to provincial roads and main arterial maintained by Council	In the Ward	Roads and Transport	Clr needs to expand on requirement. Maintenance is a regionalised function, and maintenance on provincial roads is done by the Gauteng province.	No	To be investigated	To be determined.
4	70	Upgrade of the water reticulation network in Wierdapark .	In the Ward	Utility Services	This project is currently not prioritised but it will be included on the planning of the next coming financial years.	No	Within the next coming 5 years	Replacement of worn-out water network pipes
4	70	Upgrading of the taxi rank at the Wierdapark Centre to include ablution.	Cocosdale Wierdapark, Coti Street; Eldoraingne	Roads and Transport	The Wierda Park Shopping Centre is currently embarking on a project to upgrade the taxi rank. The centre has appointed a town planner todraft the necessary agreements to facilitate development of the upgraded taxi rank	Yes	To be investigated	This is reliant on a third party Private Developer
4	70	Upgrade of the stormwater network at Cocosdale Wierdapark, in Coti St, Eldo Meadows in Lorentz St, Eldoraingne	Cocosdale Wierdapark, Coti Street; Eldoraingne	Roads and Transport	Require funding for Feasibility Studies	No	Depending on the outcome of the Feasibility study and available funding	Capital Budget programme

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	71	Electricity.	it was agreed that the following Blocks be electrified:i. Block S and SS ii. Block KK iii. Block JJ iv. Block PP v. Block O vi. Block BB and CC	Utility Services	The work will start in 2017/18 but carry over to outer financial years.	Yes		
3	71	It was further agreed that high-mass light be installed in the above Blocks except Block BB and CC.	Block S,SS,KK,JJ,PP,O,&CC			yes		
3	71	Relocation of informal settlement 1	Relocation to formal housing be speed-up because this area has been there more than any informal settlement which some have been either formalized or relocated.	Housing and Human Settlements	Planning for resettlement area in progress.	No		Upgrading in informal settlementmnts
3	71	Gravelling of roads	Block JJ	Regional Operations and Coordination	Regional competency on gravelling	No	To be investigated	To be determined.
3	71	Provision of Jojo Tanks	Block JJ	Regional Operations and Coordination	Part of upgrading of informal settlements		To be determined.	
3	72	Relocation of informal settlement 2	In the Ward	Housing and Human Settlements	Planning for resettlement area in progress.	No		Upgrading in informal settlementmnts
3	72	Replacement of transformers 2	In the Ward	Utility Services	No budget.	No		

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	72	Graveling	Attridgeville	Roads and Transport	Note: Regional competency on gravelling	No	To be investigated	To be determined.
2	73	Water and sewerage	Kekana Gardens, Ramotse, Refiloe, & Marokolong	Utility Services	Ramotse & Marokolong water reticulation was installed for 1300 stand in the 2014/15 financial year. Installation of the sewer reticulation is included on the 2017/18 financial year budget. Kekana Gardens & Refiloe are not formalised areas Housing Department is responsible.	Yes (Only the design of the required sewer system can be completed in 17/18FY)	17/18FY to 19/20 FY	Project no 710878RM
				Housing and Human Settlements & Utility Services	Planning for resettlement area in progress.	No	In MTREF	
2	73	RDP Houses	Kekana Gardens, Ramotse, Refiloe, & Marokolong	Housing and Human Settlements	Planning for resettlement area in progress.	No	in the outer years	Upgrading in informal settlement
2	73	Storm Water Drainage	Kekana Gardens, Ramotse, Refiloe, & Marokolong	Roads and Transport	Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication
2	74	Roads and Storm Water	Temba	Roads and Transport	Project needs to be initiated to address the Issue	No	Feasibility study needs to be conducted to determine the way forward	N/A
2	74	Formalization of Marokolong, Bradeview and Stellenbosch areas.	Marokolong, Bredview & Stellenbosch areas	Housing and Human Settlements	Service providers appointed to formalise Stellenbosch which is in process. Bridgeview is not developable and an alternative relocation area will have to be identified. Utility services appointed service providers to formalise Marokolong.	Dependant on budgetary provision & appointment of service providers.	Dependant on budgetary provision & appointment of service providers.	To be determined.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
2	74	Upgrading of sanitation system	at Temba	Utility Services	This request was not previously forwarded to the Water and Sanitation Department, investigation will be done and included in the MTREF	No	Within the MTREF	To be determined
				Housing and Human Settlements & Utility Services	Bulk water and sewer line construction to commence 2017/18 F/Y	Yes		Upgrading of informal settlements
2	75	Storm Water Drainage	Chris Hani, Leboneng, Tambo Unit D and Unit D ext.	Roads and Transport	Townships to be formalised/proclaimed by Housing (as indicated below). <i>Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.</i>	No	To be addressed by Housing first	
2	75	Roads, Tarred, Paving & Regravelling	Chris Hani, Leboneng, Tambo Unit D and Unit D ext.	Roads and Transport	Townships to be formalised/proclaimed by Housing (as indicated below). <i>Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.</i>	No	To be addressed by Housing first	
				Regional Operations and Coordination	Regravelling to be prioritised		MTREF	
2	75	RDP Houses and formalisation of informal settlement	Hans Kekana View, Chris Hani, Block G Ext. 3, Leboneng and Manyeleti sections	Housing and Human Settlements	Gauteng Human Settlements.	No	in the outer years	Upgrading in informal settlements
2	76	Stormwater Drainage	All Sections	Roads and Transport	Stormwater Master plan with proposed drainage networks, priorities and costing available. Require specific location of sw problems.		MTREF	

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
2	76	Sewarage system	All Sections	Utility Services	The provided information is not sufficient, which areas are they referring too, is it new sewerage system or what ??	No	Will be determined as soon as sufficient information is provided.	Will be determined as soon as sufficient information is provided.
				Housing and Human Settlements & Utility Services	Planning in progress.	No	Outer years	Upgrading of informal settlements
2	76	Housing	All Sections	Housing and Human Settlements	Planning in progress.	No	in the outer years	Upgrading in informal settlementmnts
4	77	Municipal administration offices	in the ward	Group Property Management	The request is not feasible. Current facilities to be used in the region			
4	77	Storm water and Roads	1. Ext ,22 and 19	Roads and Transport	Roads & Sw services to be provided by Housing and Human Settlement Department with township formalisation			Expected under ReAga Tshwane programme
4	77	Mobile Clinic	in the ward	Health	Engagement with Gauteng Province on expansion of mobile services in ward 77, as they currently providing mobile services in the neibouhgring wards	No	FY17/18	YES
4	78	Resilient infrastructure and housing development.	in the ward	Housing and Human Settlements	Informal settlements relocated.	No	in the outer years	Upgrading in informal settlementmnts
4	78	Inclusive economic growth and job creation.	in the ward	Economic Development and Spatial Planning	Through the establishment of the Industrial Park	No	In the 2018/19 financial period	The Business Support Centre in Olievenhoutbosch to Support SMMEs

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
4	78	Safer City	in the ward	Community Safety	Members are deployed on a daily basis according to information received from the Station Crime Combatting Forum meetings (SAPS) as well as accident statistics from Trafman system	yes		
4	79	No propoer facilities for Taxis and busses in the ward resulting in illegal parking	Van Ryneveld Ave., c/o Dan Pienaar road open area next to community centre	Roads and Transport	A site inspection will be conducted to identify the problem and solutions	yes	to be investigated	
4	79	Water infrastructure is ageing and need upgrading	Pierre van Reyneveld and Lyttleton Manor	Utility Services	This project is currently not prioritised but it will be included on the planning of the next coming financial years.	No	Within the next coming 5 years	Replacement of worn-out water network pipes
4	79	Upgrading and improving roads and stormwater infrastructure around the Irene Mall and Pierre van Reyneveld	Van Reyneveld road between Nelmapius and Solomon Mahlangu roads. Kruger and Theron streets	Roads and Transport	To be addressed by Private Developer	Yes, private developers in process	n/a	Private Township development
3	80	24hour Library with wi-fi hotspot	in the ward	Community and Social Development services	Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
3	80	24 hour clinic	in the ward	Health	Gauteng provincial Health department currently attending to contruction of the clinc in Sunnyside which will cover ward 80	No	FY 19/20 On provision that appropriate land parcel is aquired	YES

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	80	High mast lighting of renewable energy	Burgerspark, Berea Club, Nelson Mandela and Rissik/Visagie and Scheiding Streets	Utility Services	The request will be investigated and included in the 2017/18 Public Lighting Programme	No	2017/2018	Tshwane Public Lighting Programme
3	81	Clinic	At Nelson Mandela, Rissik and Scheiding streets	Health	Gauteng provincial Health department currently attending to construction of the clinic in Sunnyside which will cover ward 81	No	FY 19/20 On provision that appropriate land parcel is acquired	YES
3	81	Community Library	in the ward	Community and Social Development services	Project in process.	Yes	Project in process.	Project in process.
3	81	Caledonian stadium (multi purpose sport centre)	Caledonian Stadium	Community and Social Development services	Project in process.	Yes	Project in process.	Project in process.
3	82	Replacement of water pipes	in Ashley Gardens, Alphen Park and Maroelana	Utility Services	Replacement of the critical parts will start in 2017/18.	Yes		Replacement of worn-out water network pipes(710026)
3	82	Completion of Menlo Park storm water canals	Menlo Park	Roads and Transport	Construction of outlet structure of canal will be done, subject to budget approved in 2017/2018	Yes	N/A	711265 Upgrading of Stormwater Canal: Hartebeest Spruit
3	82	Replacement of sewage network	in Menlo Park	Utility Services	Department busy drafting a 3 year Sewer Pipe Replacement Tender to replace various redundant sewers throughout Tshwane. Various Sewer lines have already been identified for replacement.	No	Within the next 2 years.	Replacement of Sewers (711404)
6	83	Building of Sports Facilities	Rubenstien Ave and Lois Ave and other streets in Ward 83	Community and Social Development services	Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	83	Pedestrian Bridge in Waterkloof	Waterkloof	Roads and Transport	Planning Division is in the process of updating the pedestrian safety master plan	No	To be prioritised and included in the Pedestrian Safety Master Plan - Pedestrian Safety Master Plan	Traffic calming and Maintenance
6	83	Replacement of Waterpipe System	in the entire ward	Utility Services	This project is currently not prioritised but it will be included on the planning of the next coming financial years.	No	Within the next coming 5 years	Replacement of worn-out water network pipes
3	84	Upgrade all infrastructure (water reticulation; sewage and electricity network	in the entire ward	Utility Services	This project is currently not prioritised but it will be included on the planning of the next coming financial years.	No	Within the next coming 5 years	Replacement of worn-out water network pipes
3	84	Environmental development and ecosystem maintenance of the vleiland and wetland area	in the entire ward	Environmental and Agriculture Management	It can be addressed as part of riverine and wetlands management program if the requested operating budget is allocated.	No	In can be addressed in 2017/18 if the budget requested by the Department is allocated	Riverine and wetlands management program
3	84	Assesment of the extent of maintenance required to upgrade the electricity distribution network	in the entire ward	Utility Services	Maintenance of infrastructure form part of the Regional operations, But in a case of construction of new projects Energy and Electricity Division is guided by the approved Master Plan and allocation of Budget to address the issue raised	No	Utility Services: Energy and Electricity is in a process to erect 2 New Substations and Upgrading 4 existing to meet the growing demand and comply with NRSA minimum requirements to distribute quality electricity.	Bulk Infrastructure Services



Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	85	Replacement and expansion of streetlight infrastructure	Farm road, Premier, Rossouw, Willowdene, Swardlelie, Disselboom, Stilgere, Wapadrand, Lorma, Speek, Griffiths, Steinberg, Meerlust, Libertas streets	Utility Services	Maintenance of infrastructure form part of the Regional operations, But in a case of construction of new projects Energy and Electricity Division is guided by the approved Master Plan and allocation of Budget to address the issue raised	No	To be prioritised and Included in the Master Plan	Public lighting Programme
6	85	Roads – Traffic calming, Roads upgrade and Road markings	Wapadrand, Cura, Stellenberg, Libertas, Meadow roads	Roads and Transport	Planning Division is in the process of updating the pedestrian safety master plan	No	To be priotised and included in the Pedestrian Safety Master Plan - Pedestrian Safety Master Plan	Traffic calming and Maintenance
6	85	Informal Trading hub and taxi rank	Close to Lynnwood Road	Economic Development and Spatial Planning	Through the establishment of economic infrastructure(stalls, storages and ablution facilities)	No	In the 2018/19 financial period	Informal trade stalls and ablution facilities
6	86	Land to be rezoned for a Police Station	To be identified	South African Police Services	In the Process to be followed -up			
6	86	The existing Clinic must be upgraded and operate 24hours	Ext 1	Health	Gauteng provincial Health department currently attending to contruction of the clinc in Sunnyside which will cover ward 86	No	FY 19/20 On provision that approriate land parcel is aquired	YES
6	86	That an early Child Hood Center be Developed		Community and Social Development services	Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
5	87	RDP houses and land for human settlement.	Plot 171 ,175, Eastlyne next to Tshwane Buss depot	Housing and Human Settlements	Planning in progress.	No	In the outer years	Upgrading in informal settlememnts

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
5	87	Infrastructure - Electricity, water, sanitation, sidewalks and street signs at schools	Plot 175 Eastlynn and New street, Bavianspoort and Mark ave. at Walmarans street	Utility Services	This might be a new development to take place, Housing Department must formalise first.			
5	87	Swimming pool	Next to Eastlynn Clinic	Community and Social Development services	Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
1	88	Tarring of roads	Block P, SS ext. 1	Roads and Transport	Feasibility to be established and ranking in a roads backlog prioritisation system in proclaimed townships to be determined.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication
1	88	Multipurpose Centre	SS Ext	Community and Social Development services	Prioritisation and future budget submission.	No	Beyond current MTREF	Greening of Sports Fields Programme.
1	88	Park	Block DD next to Sediba Sa Tsebo primary school	Environmental and Agriculture Management	To be investigated	No	The MTREF does not make provision for park development. The process for park development entails site verification for ownership, zoning and suitability as well as consultation with the Regions and Councillors. Thereafter a report is addressed to the MAYCO for approval of the prioritised list. Although funding is not available, the Department intends to execute the mentioned activities as part of its planning deliverables.	None
1	89	Roads and Storm water	Entire Ward	Roads and Transport	Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
5	87	Infrastructure - Electricity, water, sanitation, sidewalks and street signs at	Plot 175 Eastlynn and New street, Bavianspoort and Mark ave. at Walmarans street	Housing and Human Settlements, Roads and Stormwater, Utility Services	Planning in progress.	No		
1	89	RDP Houses or Serviced stands	In the ward	Housing and Human Settlements	Townships already formalised	No	N/A	N/A
1	89	Sports facility and library	Block UU next to railway line	Community and Social Development services	Prioritisation and future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
1	90	Tarring of roads and storm Water Drainage	All areas of ward 90 to have stormwater drainage. Tarring of roads at Ext 5,6 and 7 and Soshanguve South of the ward.	Roads and Transport	Planning for the roads and minor stormwater has been done. Implementation is dependent on funding.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication
1	90	Zoning of Land	All available sites of the City	Housing and Human Settlements	To be investigated	No	Outer years	Rezoning
1	90	Electricity high mast lights	All areas of the ward	Utility Services	Details of the need are not sufficiently provided. The department need a specific point where lighting in needed to be put in plan.			

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	91	The upgrade of main arterial roads in the ward including the stormwater drainange around the roads, pedestrian walkways, lighting and necessary traffic calming measures along the roads and traffic light at busy intersections.	Garsfontein road, Atterbury roads, De Villa Bois and Delmas raod to accommodate the large volume of traffic on these roads	Roads and Transport	Garstfontein Road is provincial road, but the City has an agreement to do a development. A review of the planning is envisaged - De Villa Bois and Atterbury Road, plans approved and contruction by the DEPOT should start in July 2017	No	To be investigated	To be determined.
6	91	Additional water reservoir to cater for the water needs of Mooikloof, The Hills and surrounding areas which are fed from Grootfontein reservoir. This should include a pump or measures to ensure proper pressure	Mooikloof, The Hills and surrounding areas	Utility Services	The resevoir designs have been completed and approved. The tender documents are approved and awaiting to initiate procurement Process	No	Contractors Can be appointed towards the end of 2017/2018 financial year to commence with construction in 2018/2019	Project No. 9.712534.1 Reservoir Extensions
6	91	A taxi rank in the area of Mooikloof Ridge and immediate areas	in the ward	Roads and Transport	A PT facility feasibility study needs to be conducted first.	No	To be investigated	To be determined.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
3	92	24 hour clinic	Arcadia park, c/o Wessels and Park street	Health	Gauteng provincial Health department currently attending to construction of the clinic in Sunnyside which will cover ward 86	No	FY 19/20 On provision that appropriate land parcel is acquired	YES
3	92	Safe and affordable accommodation for student population that is increasing	C/O Company and Jorison street	Housing and Human Settlements	Student accommodation is not the Department's mandate but private sector initiatives can support this need.	No	N/A	N/A
3	92	Community Library for students	C/O De Kock and Rivier street	Community and Social Development services	Existing library facility within walking distance.	No	n/a	n/a
6	93	Formalization of Informal Settlement.	Phase 1, 2 and old Vista	Housing and Human Settlements	Planning in progress.	No	Outer years	Upgrading of informal settlements
6	93	Tarring of roads	Mahlomola, Chokwe, Modiba, Gwadi, Mohlamonyane, Ledwaba, Tina, Middle streets	Roads and Transport	Project is the current 2017-20 MTREF	yes	Subject to WULA	712944 Upgrading of roads from gravel to tar in Refilwe
6	93	Multi purpose community centre	Convert the unused Refentse Primary school	Community and Social Development services	Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
1	94	Complete roads in some areas	FF East, HH and PP Ext 3	Roads and Transport		No	To be investigated	To be determined.
1	94	Pedestrian crossing bridge for use of school children	2070 GG Street next to 1340 GG OR 1348 GG and between Exibini school next to 2576 GG and at 1426 BB Street	Roads and Transport	Planning Division will include this location on the list for new bridge	No	To be investigated	To be determined.

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	94	Skills Development center	Stand 495	Economic Development and Spatial Planning	The Department is currently running two skills centres in Region 1 focusing on the training of youth in automotive related skills and another one in partnership with Gauteng Department of Economic Development focusing on tourism skills. A survey will undertaken to understand skills needs in the areas in addition to tourism and automotive related skills	No	2018/19	Skills Development
2	95	Water borne Sewerage	Stinkwater and all sections	Utility Services	Some part of the Stinkwater area, sewer reticulation was installed in the previous financial years. A new request has been submitted for CAPEX budget for the coming financial years.	No	Within the MTREF	To be determined
2	95	Housing	Stinkwater / Block F4, New Eersterus	Housing and Human Settlements	To be investigated	No	Outer years	Upgrading of informal settlements
2	95	Roads and Storm Water	Stinkwater / Block F4, New Eersterus and all sections	Roads and Transport	The Project is on the current draft 2017-20 MTREF budget	Yes	Budget requested for 2017/18 Financial year	712506 Flooding backlog: Matanteng
2	96	Upgrade of low water bridge at Doornpoort, regraveling of sand roads on agriculture land 2/3 wards.	All Agricultural areas in ward: Rooiwal, Waterval, Onderstepoort, Honingnest, Bon Acord and Pyramid	Roads and Transport	Require funding for Feasibility Studies	No	Depending on the outcome of the Feasibility study and available funding	Capital Budget programme

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
2	96	Upgrade electricity lines	SP Lines, HK Lines, P line, VA/East, VA/West	Utility Services	The section will check the performance of these lines and prioritise accordingly. Upgrade are done as per applications when they are received through connection and town development			
2	96	Sports facilities	Doornpoort, Block MM Soshanguve, Pyramid. Bo Accord, Haakdoornboom and Onderstepoort	Community and Social Development services	Future budget submission.	No	Beyond current MTREF	Need for sport facility in block MM supported. Future capex budget submission and IDP priority.
6	97	Roads and Storm Water	Mahube Extension 15 and Tau Street Ext 12	Roads and Transport	Project needs to be initiated to address the Issue	No	Feasibility study needs to be conducted to determine the way forward	
6	97	24 hour clinic /Mobile clinic	Extension 22	Health	City planned clinic in ward 97	No	FY 19/20	YES
6	97	Community Center (It must have a hall & sports grounds	Ext 12	Community and Social Development services	Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
1	98	Upgrading Boepenspruit catchment area	In the ward	Environmental and Agriculture Management	It can be addressed as part of riverine and wetlands management program if the requested operating budget is allocated.	No	In can be addressed in 2017/18 if the budget requested by the Department is allocated	Riverine and wetlands management program
1	98	Upgrading roads and storm water	In Kerk Street	Roads and Transport	Stormwater Master plan with proposed drainage networks, priorities and costing available. Require specific location of sw problems.	No	Depending on funding and focus areas for roads and stormwater services	Stormwater flooding and roads backlog eradication

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
1	98	Creating jobs	Industrial area	Economic Development and Spatial Planning	The City will facilitate the creation of work opportunities through the EPWP and related programmes		Current MTREF	
5	99	Tarring & upgrading of Cullinan Road	From Mamelodi to Cullinan via Petra Mine R513- Provincial Road	National/Provincial Department of Transport	In the Process to be followed -up with Gautrans			
5	99	Installation of High mast lights	in the ward	Utility Services	Details of the need are not sufficiently provided			
5	99	Upgrading of all internal streets/roads	De Wagen Drift Plot 79 and Surrounding Municipal Plots	Roads and Transport	The Project is on the current draft 2017-20 MTREF budget	yes	The project will be implemented in phases Subject to the Water Use Linsence Authorisation and futhur additional funds required	712946 Upgrading of roads from gravel to tar in Cullinan
5	100	Tarring & upgrading of Cullinan Road	From Mamelodi to Cullinan via Petra Mine R513- Provincial Road	National Department of Transport	In the Process to be followed -up			
5	100	Installation of High mast light:	Lethabong/ Mamelodi, Pienaarspoort and Onverwacht	Utility Services	There is currently no electricity in the Lethabong/Pienaarspoort area, Energy and Electricity Division is however currently electrifying the area. The installation of streetlights and high mast lights is part of the electrification programme	No	2017/18	Electricity-for-All
5	100	Upgrading of all Internal Roads/Streets	Refiloe ext 2, Tshepo street, Onverwacht roads	Roads and Transport	The Project is on the current draft 2017-20 MTREF budget	yes	The project will be implemented in phases Subject to the Water Use Linsence Authorisation and futhur additional funds required	712944 Upgrading of roads from gravel to tar in Refilwe



Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
6	101	Electricity	in the ward	Utility Services	Details of the need are not sufficiently provided. Clr. need to provide exact location of problems to allow investigation and possible addressing by the department.	It can be addressed in 2017/18 if budget requested by the Department is allocated	Utility Services: Energy and Electricity is responsible for new projects and Regional offices are maintaining these infrastructure once completed.	It can be addressed in 2017/18 if it's a new project to erect new infrastructure and if the budget requested by the Department is allocated
6	101	Formalization	Informal Settlements	Housing and Human Settlements	To be investigated	No	Outer years	Upgrading of informal settlements
6	101	Allocation of new stands	in the ward	Housing and Human Settlements	To be investigated	No	Outer years	Upgrading of informal settlements
7	102	Formalisation	Zithobeni	Housing and Human Settlements	Construction of top structures, water and sewer reticulation and bulk water and sewer in progress.	Yes		Upgrading of informal settlements
7	102	Mobile clinic	At Zithobeni Ext 8	Health	Gauteng health would be extending the provision of services at Zithobeni clinic to 12 hours , which also cover the need for a mobile clinic	yes	FY17/18	
7	102	Houses (RDP)	Zithobeni	Housing and Human Settlements	Construction of top structures, water and sewer reticulation and bulk water and sewer in progress.	Yes		Upgrading of informal settlements
7	103	Services Stands	Nkangala and Rethabiseng	Housing and Human Settlements	To be investigated	No	Outer years	Land acquisition
7	103	Clinic	Rethabiseng	Health	Gauteng Health, has planned for the upgrade of Rethabiseng clinic, as part of their capital infrastructure program		FY 19/20	

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
7	103	Job opportunities	Nkangala and Rethabiseng	Economic Development and Spatial Planning	The City will facilitate the creation of work opportunities through the EPWP and related programmes		Current MTREF	
7	104	Land and Housing (Provision of Title deeds, formalisation of informal settlements)	F1, F2, F3, F4, F5 and section A (Dark City)	Housing and Human Settlements	A Conveyancer as appointed by the Provincial Department of Human Settlements has registered some of the properties. The City has not yet received title deeds from the Province, as soon as they are received, they will be issued to the beneficiaries concerned.	Yes		Upgrading in informal settlements
7	104	Sports Facilities Centre/Multi-Purpose Centre	Ward 104	Community and Social Development services	Future budget submission.	No	Beyond current MTREF	Future IDP and capex budget priority.
7	104	Tarred Roads and Storm Water	All Sections in Ward 104	Roads and Transport	The Project is on the current draft 2017-20 MTREF budget	yes	Project to be implemented in phases subject to the availability of funds	712894 Upgrading of road from gravel to tar in Ekangala ward 103 and 104
7	105	Land transfer from Ekangala to Gauteng	Ekangala	Group Property Management	The process of the transfer of the land is being prioritised at the Provincial levels.			
7	105	Formalisation of Roodepoort 63	Roodepoort 63	Housing and Human Settlements	Gauteng Human Settlement project	To be investigated		
7	105	Supplying of water in rural areas and Sokhulum Section C	Sokhulum and Rural areas (22 farms)	Utility Services	The formalisation must take place first (Housing Department) then other processes can follow	No	Housing Department	To be determined

Region	Ward No	Description of Issues Raised	Exact location of where the issue is to be addressed (street name or other reference information such as GPS coordinates)	Responsible Department	How will you deliver on this request (also mention if feasible)	Can you deliver on request 2017/18 (y/n)	If you cannot address now, when can you deliver on the request in the MTREF	Project/Programme Identified to address the Priority.
4	106	Housing and land	in the ward	Housing and Human Settlements	Additional land in the Olievenhoutbosch area will have to be identified and acquired.	Dependant on budgetary provision & appointment of service providers.	Dependant on budgetary provision & appointment of service providers.	To be determined.
4	106	Roads and Storm Water 12	in the ward	Roads and Transport	Project needs to be initiated to address the Issue	No	Feasibility study needs to be conducted to determine the way forward	
4	106	Municipal ECD Centre	in the ward	Community and Social Development services	Feasability of centre to be investigated in terms of norms and standards.	No	Beyond current MTREF	Future IDP and capex budget priority.
4	107	24 hr Community Clinic and lack of emergency and health facilities	Attridgeville West c/o Mmale and Monokane street	Health	Gauteng provincial Health department currently attending to contruction of the clinc	Yes	FY19/20	YES
4	107	Storm Water Drainage	Attridgeville West along Maunde street and Morotuloga street, Kgerere street and Motheberebe street	Roads and Transport	Stormwater Master plan with proposed drainage networks, priorities and costing available. Require specific location of sw problems.	No	When funding is available.	Stormwater flooding and roads backlog eradication



## Annexure C

---

### 2017/18 Built Environment Performance Plan (BEPP)

---

**16 May 2017**

*Version: 1.1.2*





## TABLE OF CONTENTS

A	Introduction .....	13
A.1	The Role of the BEPP in relation to other Statutory Plans.....	13
A.2	Approach .....	14
A.3	List of Reference Documents.....	16
A.4	Legislative context .....	17
A.5	Council Resolution .....	17
B	Spatial Planning and Project Prioritisation.....	18
B.1	Spatial Targeting .....	18
B.1.1	Finalising urban network and integration zone planning and prioritisation .....	18
B.1.2	City of Tshwane Current Urban Network Pressure .....	22
B.1.3	Deprived Areas .....	30
B.1.4	Alignment between the City of Tshwane's Spatial Vision and expected growth .....	33
B.1.5	Activity Corridors and Integration Zones.....	36
B.2	Local Area Planning.....	42
B.2.1	Spatial Distribution of City of Tshwane Projects per Department .....	42
B.2.2	Prioritisation Criteria and Methodology.....	46
B.3	Project Preparation.....	56
B.3.1	Defining Project Preparation .....	56
B.3.2	Standard for Infrastructure Procurement and Delivery Management (SIPDM).....	56
B.3.3	Project Preparation within the City of Tshwane .....	57
B.3.4	CAPS Minimum Project Information Requirements.....	59
B.3.5	Evidence-based Project Preparation .....	61
B.4	Institutional Arrangements and Operating Budget .....	62
C	Intergovernmental Project Pipeline.....	63
C.1	Intergovernmental Project Pipeline.....	63
C.1.1	Introduction.....	63
C.1.2	Process .....	63
C.1.3	Data Preparation .....	68
C.1.4	Provincial and Municipal Project Overlap Analysis .....	69
C.2	Institutional Arrangements and Operating Budget .....	81
D	Municipal Project Pipeline .....	82
D.1	Spatial Budget Mix.....	82
D.1.1	Introduction.....	82
D.1.2	2017/18 MTREF Draft Capital Budget (Annexure A) by MSCOA Expenditure Type .....	83

D.1.3	2017/18 MTREF Draft Capital Budget (Annexure A) by Funding Source Indicatives .....	84
D.1.4	2017/18 MTREF Draft Capital Budget (Annexure A) by Departmental Cluster .....	87
D.1.5	2017/18 MTREF Draft Capital Budget (Annexure A) Spatial Analysis.....	89
D.1.6	2017/18 MTREF Draft Capital Budget (Annexure A) Asset Management .....	104
D.2	Investment Strategy .....	105
D.3	Institutional Arrangements and Operating Budget .....	105
E	Implementation .....	106
E.1	Tshwane's Sustainable Human Settlements Plan .....	106
E.1.1	Human settlement demand .....	107
E.1.2	Rural/marginalized settlements .....	108
E.1.3	Alignment of residential developments with transport nodes .....	108
E.1.4	Implementation of different tenure options.....	110
E.1.5	Programme 1: Informal Settlements upgrade.....	113
E.1.6	National Upgrading Support Programme (NUSP) .....	114
E.1.7	Social housing project planning.....	116
E.1.8	Community Facilities and Services .....	118
E.2	Procurement Approach .....	121
E.2.1	Financial Sector Charter: Funding Model .....	121
E.3	Institutional arrangements and Operating Budget.....	125
F	Urban Management.....	126
F.1	Urban Management Strategy .....	126
F.1.1	Funding Urban Management .....	127
F.2	Strengthening alignment of public transport and housing plans .....	129
F.2.1	Overview .....	129
F.2.2	Heavy Rail (Metro Rail).....	129
F.2.3	Gautrain Rapid Rail.....	133
F.2.4	IRPTN: A Re Yeng Tshwane Rapid Transit.....	135
F.2.5	IRPTN: Summary.....	140
F.2.6	Alignment of public transport with the Sustainable Human Settlements Plan.....	141
F.2.7	Description of interventions required to align planned housing and transport investment in future by CoT .....	148
F.2.8	Developments Trends within the City .....	149
F.5	Institutional Arrangements and Operating Budget .....	150
G	Institutional Arrangements and Operating Budget .....	151
G.1	Cross Cutting Institutional Arrangements .....	151
G.2	Consolidated Operating Budget .....	151

G.2.1	Background.....	151
G.2.2	The Process.....	151
G.2.3	Alignment with reporting requirements .....	153
H	Reporting and Evaluation.....	154



## LIST OF TABLES

Table B-1: Categorization of Integration Zones .....	37
Table B-2: City of Tshwane total Capital spending per department per the Urban Structuring Network .....	43
Table B-3: City of Tshwane total Capital spending per department per the BEPP Priority Zones .....	45
Table B-4: Selected prioritisation criteria .....	50
Table B-5: Weighting of the Prioritisation Criteria .....	54
Table B-6: BEPP Annual Planning Cycle .....	62
Table C-1: Summarized project details per Gauteng Department .....	64
Table C-2: Summarized project details as provided by PRASA .....	64
Table C-3: Summarized project details as provided by NDPW .....	66
Table C-4: Summarized project details per City of Tshwane Department .....	66
Table C-5: Number of City of Tshwane projects which are within 1km of Gauteng projects .....	69
Table C-6: Gauteng Province capital spending per department in terms of the UNS .....	73
Table C-7: Gauteng Province Projects intersect with UNS Structuring Elements expressed in budget allocation .....	74
Table C-8: Gauteng Project MTREF financial distribution per BEPP Priority Zone .....	78
Table C-9: Gauteng Projects total MTREF compared with BEPP Priority Zones .....	79
Table D-1: 2017/18 MTREF Draft Capital Budget Indicatives .....	83
Table D-2: 2017/18 MTREF Draft Capital Budget (Annexure A) by Expenditure Type .....	84
Table D-3: 2016/17 MTREF Draft Capital Budget (Annexure A) by Funding Source Indicatives .....	84
Table D-4: 2017/18 MTREF Draft Capital Budget (Annexure A) Funding Code Grant Ratio .....	85
Table D-5: 2017/18 MTREF Draft Capital Budget (Annexure A) by Departmental Cluster .....	87
Table D-6: 2017/18 MTREF Draft Capital Budget (Annexure A) focused on Basic Service Delivery .....	88
Table D-7: 2017/18 MTREF Draft Capital Budget (Annexure A) Regional Analysis .....	89
Table D-8: 2017/18 MTREF Draft Capital Budget (Annexure A) by Ward level .....	90
Table D-9: 2017/18 MTREF Draft Capital Budget (Annexure A) MSCOA Action Classifications .....	104
Table E-1: Sustainable Human Settlements Plan Objectives and Outcomes .....	106
Table E-2: Housing Demand and Units .....	107
Table E-3: IRPTN: Developable Land (Stations and Lines) – Alternative Alignment by Region .....	109
Table E-4: List of NUSP Informal Settlements .....	114
Table E-5: Social Housing Projects in Construction Phase .....	116
Table E-6: Social Housing Projects in Planning Phase .....	117
Table E-7: Number of Housing Projects in Planning Phase .....	118
Table E-8: Standards for Provision of Community Facilities (Source: Red Book) .....	119
Table F-1: A Re Yeng TRT Project Phasing and Go Live Dates .....	137
Table G-1: Reporting Requirements .....	153
Table H-1: BEPP Indicator Methodology and Way-forward .....	154

Table H-2: Correlation of Transformation Vision 2030 and BEPP Outcomes ..... 159

## LIST OF FIGURES

Figure A-1: Hierarchy of Spatial Planning Documents and Enablers .....	13
Figure B-1: The Urban Network Typology .....	18
Figure B-2: Urban Networking Strategy compared to the MSDF .....	19
Figure B-3: City of Tshwane nodal hierarchy .....	20
Figure B-4: Tshwane Nodal Hierarchy as per MSDF (2012) .....	21
Figure B-5: Integrated Rapid Public Transport Network, A Re Yeng Operation Plan 2016-2028 .....	22
Figure B-6: Projected number of households per modified sub place in 2030, CSIR .....	24
Figure B-7: Number of household per modified sub place, CSIR.....	25
Figure B-8: Projected growth in households per modified sub place between 2011 and 2030,CSIR...	26
Figure B-9: Projected number of jobs per modified sub place in 2030, CSIR .....	27
Figure B-10: Number of projected job opportunities in 2030, CSIR .....	28
Figure B-11: Projected growth in jobs per modified sub place between 2011 and 2030, CSIR .....	29
Figure B-12: Number of Households and Job opportunities per modified sub place, CSIR.....	30
Figure B-13: City of Tshwane distribution of Deprivation Areas .....	31
Figure B-14: City of Tshwane Deprivation Index (2017) compared with projected number of households in 2030, CSIR .....	32
Figure B-15: City of Tshwane Deprivation Index (2017) compared with projected number of economic opportunities in 2030, CSIR .....	32
Figure B-16: Metropolitan Spatial Development Framework, 2012 in terms of Treasury Urban Network Structure .....	33
Figure B-17: Expected household distribution in 2030 compared with current MSDF direction, CSIR .....	34
Figure B-18: Expected economic opportunity distribution in 2030 compared with current MSDF direction, CSIR.....	35
Figure B-19: Deprivation Index compared with current MSDF direction, CSIR .....	36
Figure B-20: City of Tshwane Integration Zones.....	37
Figure B-21: Conceptual representation of Integration Zone 1 and Urban Node linkages .....	38
Figure B-22: Conceptual representation of Integration Zone 2 and Urban Node linkages .....	38
Figure B-23: Conceptual representation of Integration Zone 3 and Urban Node linkages .....	39
Figure B-24: Conceptual representation of Integration Zone 4 and Urban Node linkages .....	39
Figure B-25: Conceptual representation of Integration Zone 5 and Urban Node linkages .....	40
Figure B-26: Conceptual representation of Integration Zone 6 and Urban Node linkages .....	40
Figure B-27: Conceptual representation of Integration Zone 7 and Urban Node linkages .....	41
Figure B-28: Conceptual representation of Integration Zone 8 and Urban Node linkages .....	41
Figure B-29: City of Tshwane MTREF Projects with elation to the UNS .....	42
Figure B-30: City of Tshwane Projects in terms of BEPP Priority Zones .....	44
Figure B-32: Multi-criteria analysis methodology .....	47

Figure B-33: Prioritisation Criteria .....	49
Figure B-34: Relative weighting of main criteria .....	53
Figure B-35: SIPDM Framework Project Life Cycle .....	57
Figure B-35: City of Tshwane Capital Planning Information System (CAPS) .....	58
Figure B-36: City of Tshwane Package of Plans .....	58
Figure B-37: High Level Project Life-cycle Process Flow within CAPS .....	59
Figure C-1: Gauteng Approved 2017/18 MTREF Project Locations .....	<b>Error! Bookmark not defined.</b>
Figure C-2: City of Tshwane Approved 2017/18 MTREF Project Locations .....	<b>Error! Bookmark not defined.</b>
Figure C-3: City of Tshwane projects which are within 1km of Gauteng projects .....	70
Figure C-4: Public Works Project Location with Regards to City of Tshwane Projects .....	71
Figure C-5: PRASA project locations with regards to City of Tshwane Project Locations .....	<b>Error! Bookmark not defined.</b>
Figure C-6: Gauteng Projects in relation to the Urban Network Structure .....	<b>Error! Bookmark not defined.</b>
Figure C-7: Public Works projects in terms of the UNS Structure .....	<b>Error! Bookmark not defined.</b>
Figure C-8: PRASA Projects in terms of the UNS Structure .....	<b>Error! Bookmark not defined.</b>
Figure C-9: Gauteng Province spending in BEPP Priority Zones .....	<b>Error! Bookmark not defined.</b>
Figure C-10: NDPW spending in BEPP Priority Zones .....	<b>Error! Bookmark not defined.</b>
Figure C-11: PRASA spending in BEPP Priority Zones .....	<b>Error! Bookmark not defined.</b>
Figure D-1: 2017/18 MTREF Capital Budget Indicatives vs 2017/18 MTREF Capital Budget Demand ..	83
Figure D-2: 2017/18 MTREF Capital Budget (Annexure A) by Funding Source Indicatives .....	85
Figure D-3: 2017/18 MTREF Draft Capital Budget (Annexure A) by Departmental Cluster .....	87
Figure D-4: 2017/18 MTREF Draft Capital Budget (Annexure A) Regional Analysis .....	90
Figure D-5: 2017/18 MTREF Draft Capital Budget (Annexure A) Top 25 Wards .....	93
Figure D-6: City of Tshwane MSDF Node Areas .....	94
Figure D-7: 2017/18 MTREF Draft Capital Budget (Annexure A) MSDF Node Area Analysis .....	94
Figure D-8: City of Tshwane MSDF Industrial Nodes .....	95
Figure D-9: 2017/18 MTREF Draft Capital Budget (Annexure A) MSDF Industrial Node Analysis .....	96
Figure D-10: City of Tshwane Metropolitan Nodes .....	97
Figure D-11: 2017/18 MTREF Draft Capital Budget (Annexure A) MSDF Capital Core Analysis .....	97
Figure D-12: 2017/18 MTREF Draft Capital Budget (Annexure A) MSDF Metropolitan Node Analysis ..	98
Figure D-13: City of Tshwane IRPTN Phase 1 500m Development Catchment .....	99
Figure D-14: 2017/18 MTREF Draft Capital Budget (Annexure A) IRPTN 500m Development Catchment Analysis .....	99
Figure D-15: City of Tshwane Deprivation Index (StatsSA Census 2011) .....	100
Figure D-16: City of Tshwane Pro-Poor Expenditure Areas .....	101
Figure D-17: 2017/18 MTREF Draft Capital Budget (Annexure A) Pro-poor Area Analysis .....	102

Figure D-18: Priority Nodes and Corridors for Spatial Transformation .....	103
Figure D-19: 2017/18 MTREF Draft Capital Budget (Annexure A) Priority Nodes and Corridors for Spatial Transformation Analysis .....	104
Figure F-1: Structure for Urban Management .....	127
Figure F-2: Existing and planned PRASA rail .....	130
Figure F-3: PRASA rail in relation to projected households in 2030 .....	131
Figure F-4: Planned PRASA rail in north-eastern Tshwane .....	132
Figure F-5: PRASA rail in relation to projected employment areas in 2030 .....	133
Figure F-6: Existing and Planned Gautrain network in relation to projected households in 2030 .....	134
Figure F-7: Existing and Planned Gautrain network in relation to project jobs in 2030 .....	135
Figure F-8: TRT Operational Roll Out .....	136
Figure F-9: Existing and Planned BRT in relation to project households in 2030 .....	139
Figure F-10: Existing and Planned BRT Network in relation to projected jobs in 2030 .....	140
Figure F-11: Underserved Township categories, Sustainable Human Settlements Plan 2014 .....	143
Figure F-12: City of Tshwane Human Settlements Plan in relation to expected economic opportunities in 2030, CSIR .....	144
Figure F-13: Underserved Townships as per the City of Tshwane Human Settlements Plan in relation to expected household growth, CSIR .....	145
Figure F-14: Possible housing development along IRPTN, Sustainable Human Settlement Plan 2014 .....	146
Figure F-15: Underserved Township categories, Sustainable Human Settlements Plan 2014 .....	147
Figure F-16: Underserved Townships compared to the Urban Network Structure of the MSDP .....	148

**LIST OF ACRONYMS**

BEPP	Built Environment Performance Plan
CAPEX	Capital Expenditure
CaPS	Tshwane's Capital Planning and Prioritisation System
CBD	Central Business District
CIF	Capital Investment Framework
CITP	Comprehensive Integrated Transport Plan
COT	City of Tshwane
DIPS	Development Intervention Portfolios
DORA	Division of Revenue Act (2 of 2013)
FDI	Foreign Direct Investment
GCR	Global City Region
GGMP	Gauteng Growth Management Perspective
GPG	Gauteng Provincial Government
GSDF	Gauteng Spatial Development Framework
ICDG	Integrated City Development Grant
IDP	Integrated Development Plan
IRPTN	Integrated Rapid Public Transport Network
LSDF	Local Spatial Development Framework
MCA	Multi-Criteria Analysis
MFMA	Municipal Financial and Management Act (56 of 2003)
MSA	Municipal Systems Act (32 of 2000)
MSDF	Metropolitan Spatial Development Framework
MTEF	Medium Term Expenditure Framework
MTREF	Medium Term Revenue and Expenditure Framework
NSDP	National Spatial Development Perspective
OPEX	Operational Expenditure

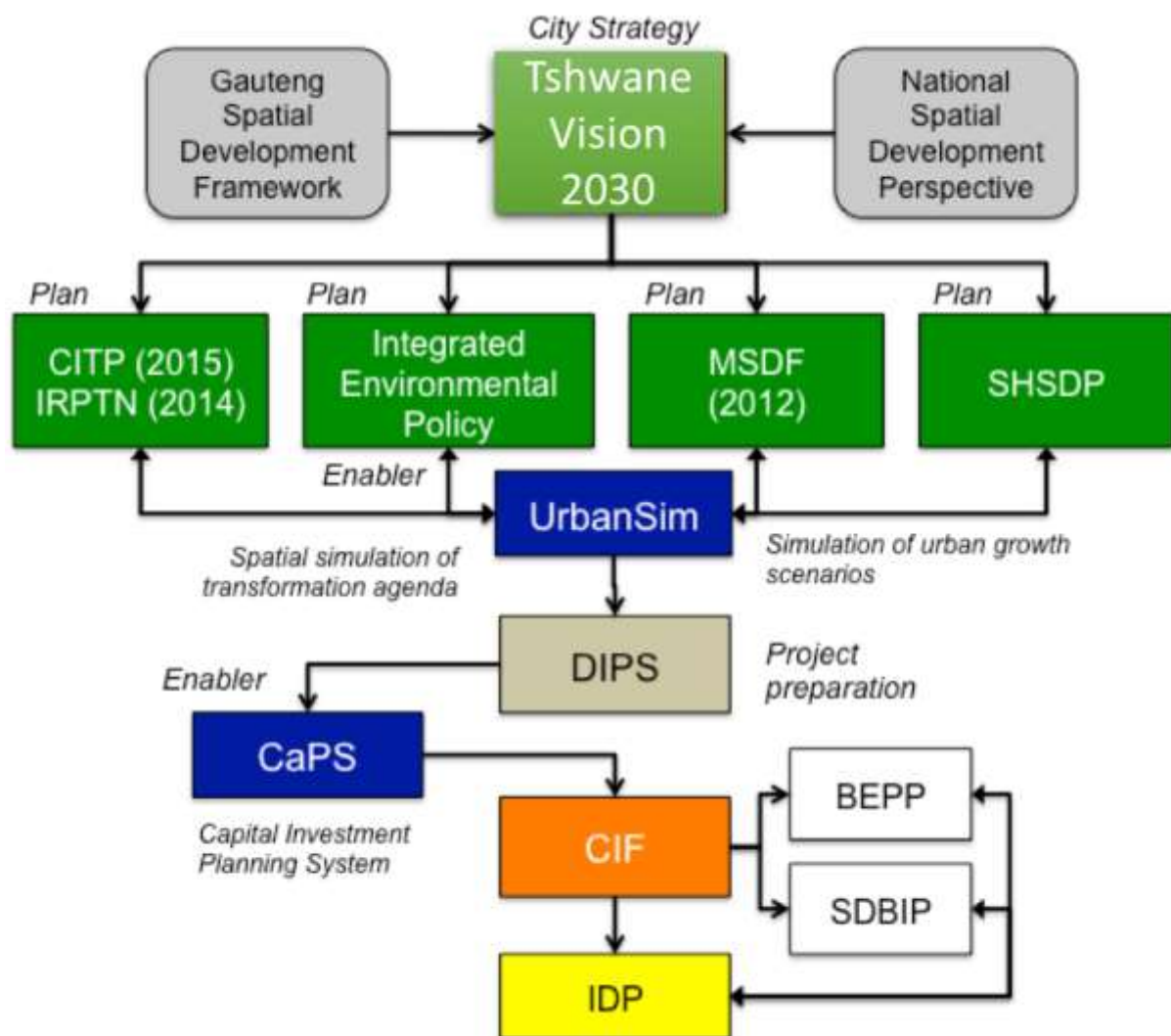
RSDF	Regional Spatial Development Framework
SAF	Strategic Area Framework
SDBIP	Service Delivery and Budget Implementation Plan
SIP	Strategic Infrastructure Project
SOCA	State of the City Address
SPLUMA	Spatial Planning and Land Use Management Act (13 of 2013)
TOD	Transit Oriented Development
TRT	Tshwane Rapid Transit System
UDF	Urban Development Framework
USDG	Urban Settlements Development Grant

## A Introduction

### A.1 The Role of the BEPP in relation to other Statutory Plans

The role of the BEPP is to summarise and culminate the outcomes of a multitude of spatial planning documents (refer to Figure A-1) within the municipality, and these plans are spatial strategies that ensure that implementation on the ground is guided by a spatial framework. These documents are informed by National and provincial strategies and policies and those at city level, namely, Tshwane Vision 2030, IDP, MSDF, RSDF and LSDF. Each of these plans have a spatial imperative that the city needs to achieve in the short, medium and long-term.

Figure A-1: Hierarchy of Spatial Planning Documents and Enablers



This submission provides the city's approach towards spatial targeting with primary focus on the transport / movement system as the key spatial restructuring element of the built environment. The city undertook a scientific growth forecasting assignment commissioned by the CSIR, which informed the formulation of the Tshwane Growth Management Perspective. Additionally, Tshwane Capital



Planning System (CaPS) has been procured, which is the business planning and decision support tool ensuring that capital projects within the city are evaluated according to quantitative, qualitative and spatial transformation criteria as part of the formulation of the annual developmental (capital) budget.

In the compilation of this report, cognisance was taken of the current institutional challenges and processes including but not limited to the issues and catalytic projects that was raised as part of the State of the City Address. This process was enabled by the Tshwane Capital Planning System (CaPS), which is a capital investment planning tool for providing business intelligence, data validation, project synchronisation and prioritisation, and project progress related information.

CaPS will ensure an inclusive approach towards the transformation of the City as envisaged by the Vision 2030 pillars and the 18 Priority Areas. Programme and project synchronisation both at municipal and other spheres of government is essential, and it is through the implementation of CaPS that seamless integration will be ensured at various stages of project planning and implementation. A comprehensive prioritisation model embedded in CaPS, built for the City's needs, contains components that will enhance compliance with governance issues, spatial transformation matters, impact and efficiencies and gains for all identified programmes and projects. All spatial priorities and mayoral priority programmes for investment have been categorised, included and mapped for all the seven regions within CaPS.

## **A.2 Approach**

The approach of this 2017/18 BEPP document is to provide updated information on key issues where information is available and to provide a point of departure for the development of the 2018/19 BEPP. Fundamentally, the focus is anchored around the new Vision 2030 principles that are premised on the pillars of economic growth and job creation; creating a caring environment and promoting industry; delivering excellent services and protecting the environment; keeping the residents safe and being open, honest and responsive

Tshwane's urban fabric is a stark reminder of the large disparities that still exist between the economic status of various segments of the population. Only through focused effort on improving urban productivity, inclusivity and sustainability will these disparities start to change.

Fortunately, the City of Tshwane has invested significantly in the development of appropriate tools and methods to assist in achievement of these outcomes. A fundamental point of departure is to plan in recognition of, and with full visibility on, the spatial realities of the City. Not only are the spatial elements in terms of a multitude of planning approaches well mapped in terms of historical backlogs but forward looking spatial planning is also in an advanced stage of maturity. Evidence of this can be seen in the spatial transformation over time within the City's boundaries.

Tshwane has invested in a system called CaPS which allows for the incorporation of the City's priorities by means of qualitative, quantitative and spatial assessments. The focus on spatial alignment has been proven to significantly redirect and reshape the way in which the City is applying its capital expenditure to achieve a multitude of interwoven and interrelated goals and objectives. Most of these spatial realities focus on redressing the inequalities of the past in an integrated and sustainable way.

The 2017/18 BEPP puts forward a template to which the City will endeavour to shoehorn its capital expenditure going forward. The template will comprise of the three elements in time namely the past, the present and the future. By far, the biggest impediment and responsibility lies in the past – huge infrastructure backlogs serve as handicaps slowing down the process of restoring human dignity and providing equality for all. Significant and effective investment should therefore go into redressing the historical backlogs that were created in history and exacerbated by significant urbanisation in combination with a host of other factors such as slow economic growth, insufficient expenditure on basic services, and many other factors.

The City must however not forget about maintaining its world-class infrastructure that is in place. The infrastructure that services the middle-class and the backbone of the urban economy of the City. A focus on maintaining these sectors will ensure a prevailing growth in the multi-faceted urban economy of the City and should continue to entice new entrants into this space, thereby creating new opportunities and new, much needed jobs.

Lastly, a specific and very strategic focus should be on the City's future. Catalytic projects that will unlock new areas of development, excellence and growth should be identified and be allowed to grow and prosper. The City should through strategic partnerships, and through other targeted efforts, endeavour to make Tshwane more attractive to new development. Tshwane should compete vigorously with its neighbouring cities to become and remain, an attractive and integrated area of growth within all sectors of the economy. In this process, Tshwane must embrace and use its competitive advantages, offered by its geography, its tourism, its tertiary education sector, its commerce, its industry, its innovation and its skilled workforce.

The challenge would be to find the right balance between these historic challenges, present-day requirements and future-investment challenges.

### **A.3 List of Reference Documents**

The following reference documents were consulted during the development of this report:

- National Spatial Development Perspective (NSDP) (2009)
- Built Environment Performance Plans Guidance Notes for 2016/17 and 2017/18-2019/20 MTREF
- Gauteng Spatial Development Framework (GSDF) (2016)
- Tshwane Metropolitan Spatial Development Framework 2012
- Tshwane Integrated Development Plan (IDP) 2017/21 (Draft 2017)
- Tshwane Service Delivery Budget Implementation Plan (SDBIP)
- Gauteng Provincial Government Multi-Pillar Programme of Radical Transformation
- Spatial Development Framework (SDF) Planning Policy for Tshwane Rapid Transit (TRT)
- Integrated Rapid Public Transport Network (IRPTN) Land Use – Transport Integration Plan
- City of Tshwane (CoT) Spatial Atlas (Demographics)

#### **A.4 Legislative context**

The BEPP, as required under the legislation contained in the Division of Revenue Act (DORA) of 2016 was first introduced in the 2011/12 financial year as an eligibility requirement in respect of the Urban Settlements Development Grant (USDG). The BEPP since became a key eligibility requirement for the Integrated City Development Grant (ICDG), the Urban Settlements Development Grant (USDG), the Public Transport Infrastructure Grant (PTIS), the Neighbourhood Development Partnership Grant (NDPG), the Integrated National Electrification Grant (INEP), and the Human Settlements Development Grant (HSDG).

The content of this Tshwane 2017/18 BEPP was built based on the guidance as provided by National Treasury as contained in the Guidance Note for the BEPP 2017/18-2019/20.

The guidelines provided by National Treasury inform that focus areas for the 2017/18 BEPP is to strengthen the overall application of the Built Environment Value Chain (BEVC) through:

- a) Clarifying development objectives, strategies and targets relative to agreed productivity, inclusion and sustainability outcomes
- b) Consolidating spatial planning, project preparation and prioritisation via transit-oriented development plans and programmes in prioritised integration zones
- c) Establishing an actionable intergovernmental project pipeline of catalytic projects via a portfolio management and project preparation tools
- d) Clarifying long term financing policies and strategies for sustainable capital financing of the intergovernmental project pipeline

Under the strategic direction that will be provided by the City's new leadership, a refinement and revision of this work will commence, allowing for a refreshed BEPP to be tabled for the 2018/19 financial cycle.

#### **A.5 Council Resolution**

The Draft BEPP 2017/2018 will be presented to the Mayoral Committee on May 2017 for approval, where after it will be submitted to the City of Tshwane Council for adoption on 30 May 2017 together with the Draft IDP 2017/21 Review and Draft 2017/18 MTREF.

## B Spatial Planning and Project Prioritisation

### B.1 Spatial Targeting

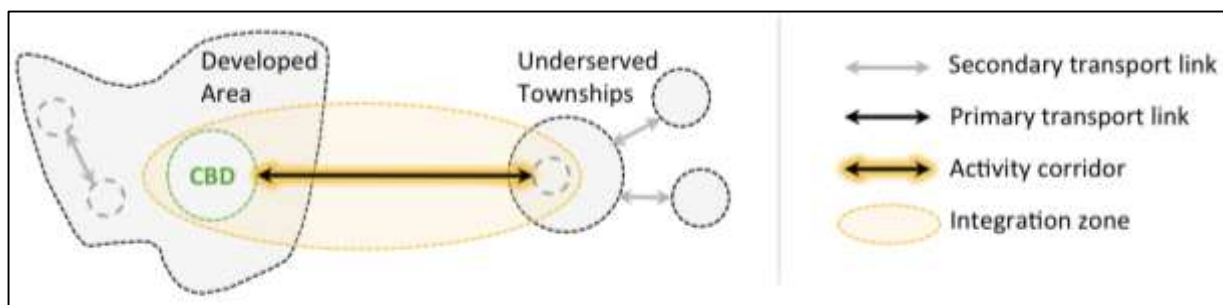
#### B.1.1 Finalising urban network and integration zone planning and prioritisation

##### B.1.1.1 The Urban Network Strategy Spatial Structure Directive: Urban Network Typology

The Urban Network Strategy (UNS) is a national policy directive that informs spatial planning at both a provincial and regional scale and forms the basis of the Built Environment Performance Plan (BEPP) by providing a spatial approach by which to target investment. The UNS typologies comprises of the following elements:

- The **Central Business District (CBD)**, an area for focused regeneration and management;
- **Urban hubs**, including both traditional and emerging centres of economic activity, within which mixed used development is to be encouraged and managed;
- **Smaller nodes**, within which mixed-use development is similarly to be promoted;
- **Activity corridors**, which connect the urban hubs and the CBD, along which rapid public transport and integrated high-density land development is to be promoted;
- **Secondary transport** linkages that are to ensure the spatial integration of smaller nodes by connecting them to urban hubs; and
- **Integration zones**, which represent a collective of these typologies and form the prioritised spatial focus areas for coordinated public intervention.

Figure B-1: The Urban Network Typology



To better understand the correlation between the UNS typology defined by Treasury and the City of Tshwane's spatial framework, the following table is provided.

**Figure B-2: Urban Networking Strategy compared to the MSDF**

<b>Urban Network Structure (National Treasury Terminology)</b>	<b>Tshwane Metropolitan Spatial Development Framework 2012 (City of Tshwane Terminology)</b>
Central Business District (CBD)	Metropolitan Nodes
Urban Hubs	Urban Cores
Smaller Nodes	Emerging Nodes
Activity Corridors	Activity Corridor
Secondary Transport	Mobility Corridor
Integration Zones	Activity Spine Mobility Spine

***B.1.1.2 City of Tshwane Current Urban Network Direction***

The City of Tshwane current spatial framework, as required by the municipal Systems Act (2000), is the Tshwane Metropolitan Spatial Development Framework (MSDF) of 2012. The MSDF has defined a hierarchy of nodes. The nodal typologies as per the Spatial Development Framework are as follows:

- Metropolitan Nodes:** these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Metropolitan nodes are those nodes within the City benefiting from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rage of growth, provide infrastructure in line with the growth management plan and maintain the urban environment. Such localities are also where the most extensive land use rights, including densities, are likely to be supported, also in line with the growth management strategy.
- Urban Cores:** former township areas were a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes, Tshwane needs to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme (NDPG) is a lead City programme and the main instrument 'township renewal'. Zithobeni, Ekangala and Refilwe are presented as Urban Cores.

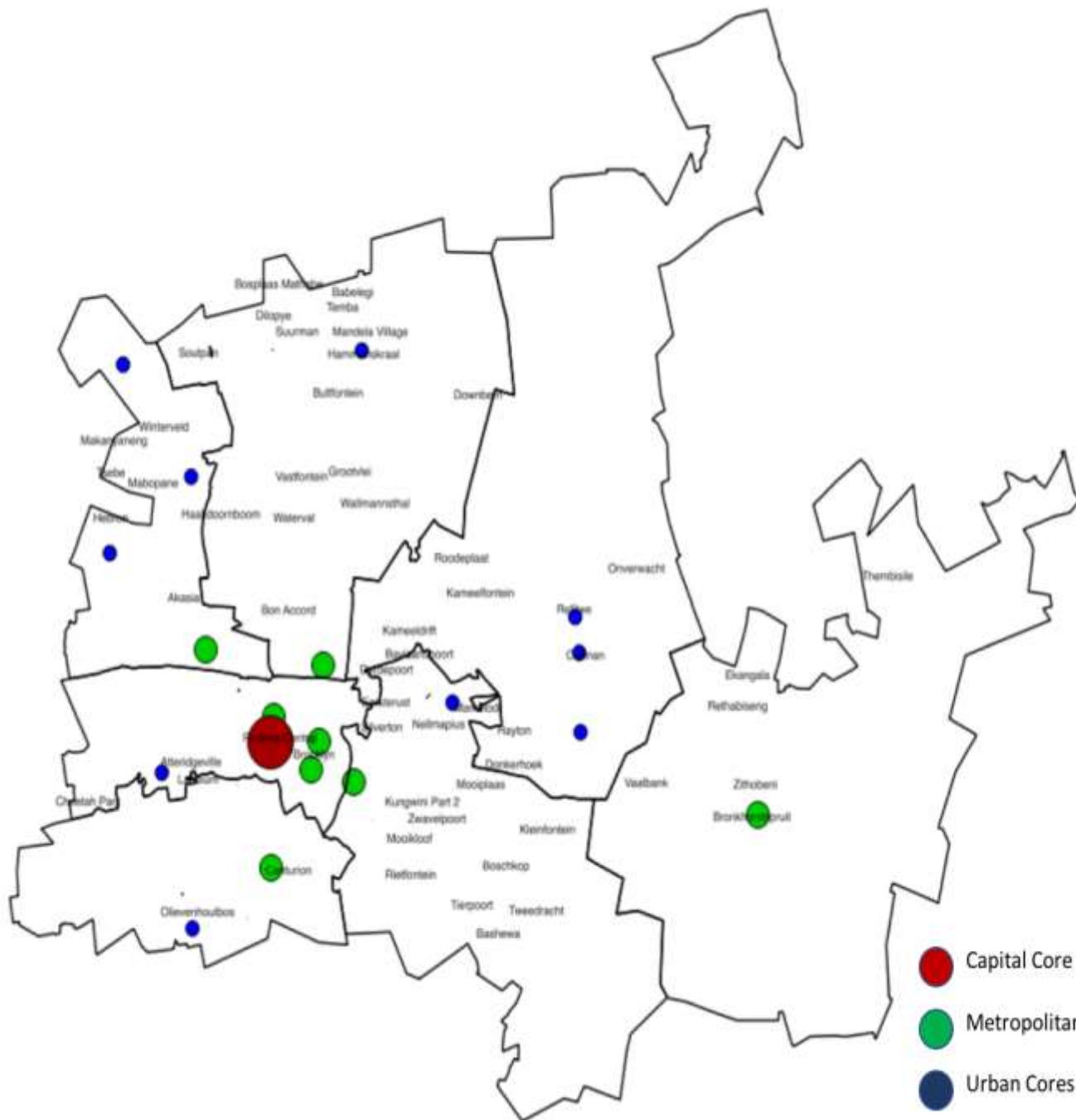
- **Emerging nodes:** over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Cullinan is presented as Emerging nodes.

The City identified the nodes as described above as follows:

**Figure B-3: City of Tshwane nodal hierarchy**

Node	Areas within Node	
The Capital Core	CBD	
Metropolitan Nodes	Akasia; Kolonnade; Brooklyn; Hatfield; Menlyn; Centurion; Bronkhorstspruit	
Urban Cores	Hammanskraal/Temba; Mabopane/Soshanguve; Ga-Rankuwa; Atteridgeville/Saulsville; Mamelodi; Ekangala; Refilwe Zithobeni; Olievenhoutbosch	
Emerging Nodes	Soshanguve/Kopanong; Pretoria North/Rainbow Junction; Hazeldean; Woodlands; Wingate Park; Irene; Monovani;	
Specialised Activity Areas	Industrial Estates	Babelegi; Ga-Rankuwa; Rosslyn; Kelrksoord; Kirkney; Hermanstad; Pretoria Industrial; Sunderland Ridge; Rooihuiskraal; Irene; Hennospark; Samcor Park; Waltloo; Silvertendale; Koedoespoort; Silverton; Ekandustria.
	Research, Innovation, Education and Technology Institutes	Council for Scientific and Industrial Research (CSIR) and Innovation Hub (Blue IQ); Highveld Technopark; Human Science Research Council (HSRC); George Mukhari Academic Hospital; Onderstepoort Research Laboratory/Vetinary Institute; Steve Biko Academic Hospital; Tshwane University of Technology; University of Pretoria; Thaba Tshwane
	Airports	Waterkloof Air Force Base; Zwartkop Air Force Base
	Tourism Nodes	Dinokeng Nature Reserve; Cullinan

Figure B-4: Tshwane Nodal Hierarchy as per MSDF (2012)



According to the MSDF (2012), the following definitions apply to the spatial structuring elements of the City of Tshwane's movement network:

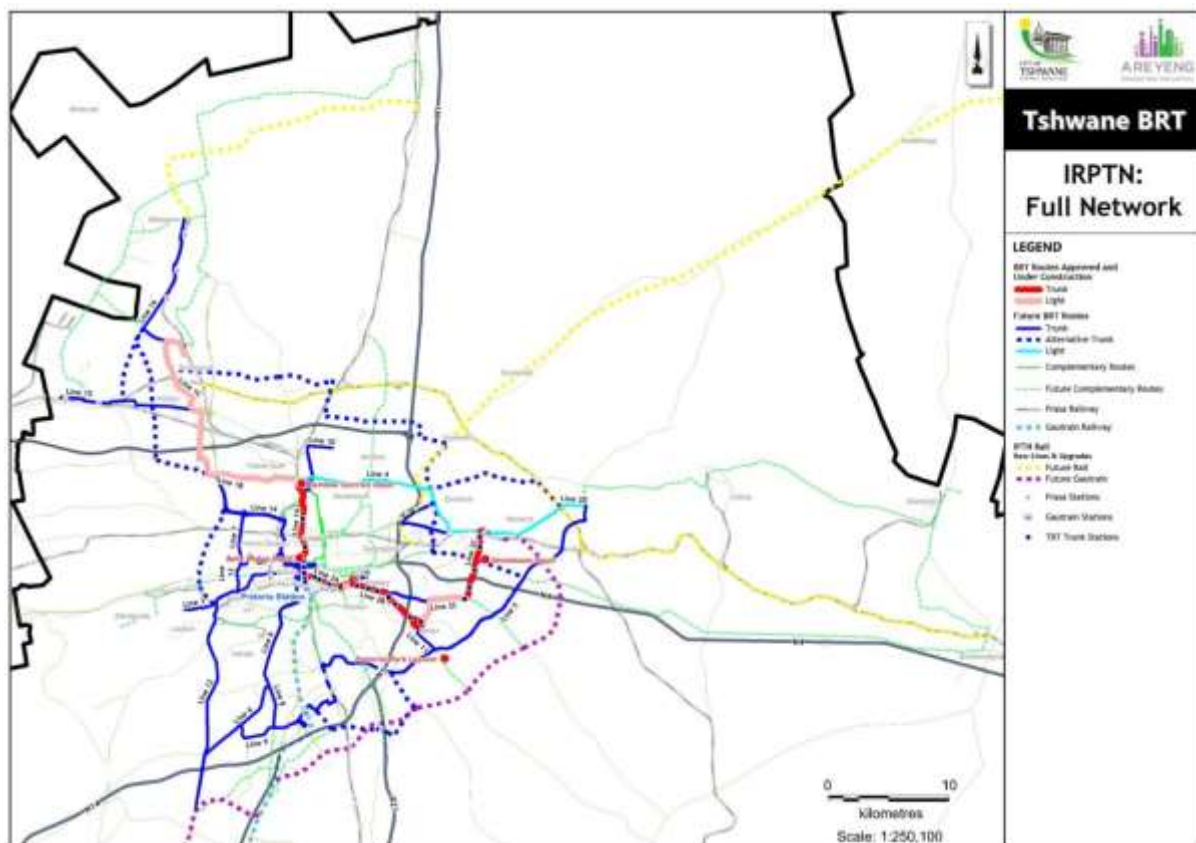
- Mobility Corridor:** The primary reason for the existence of this type of corridor is to move large numbers of people from one point to another in the city and often over relatively long distances. This corridor will typically move people from the peripheral areas to work opportunities and back during the day. Because of the long distances separating many people from their work opportunities there is a great need to move people around the city during peak hours in the



fastest, most cost-effective manner with as little stops as possible between the origins and destinations.

- **Activity Corridor:** The integration between land use, economic activity and movement is the key function of this corridor. People do not only move between the two outer points of the corridor but also between various points along the corridor. A mature activity corridor displays most of the positive aspects associated with activity corridors, such as high residential densities and high non- residential land use intensities. Such a corridor will be most appropriate in the more central parts where several nodes with a certain degree of intensity and mix of uses already exist in relative proximity to each other.

Figure B-5: Integrated Rapid Public Transport Network, A Re Yeng Operation Plan 2016-2028



### B.1.2 City of Tshwane Current Urban Network Pressure

In 2016 the CSIR assisted the City of Tshwane to amongst others identify household distribution and growth in line with the City's spatial agenda as well as economic opportunities that will be created in the same period across the city. The CSIR undertook this exercise with an Urban Simulation model. The CSIR's study evaluated three scenarios of which the optimal growth scenario has been accepted for the purpose of this document. The selected scenario, *Trend scenario with higher population*

*growth*, represents what most stakeholders in the simulation process would regard as a given. This scenario is based on a less conservative demographic and employment projections.

According to the study undertaken by the CSIR, urbanisation, population growth and the provision of economic infrastructure became the key considerations for the 'remaking of the Capital City'. As such, thinking about how to address the future of each of these components to realise a future vision becomes critical.

Current planning directives and tendencies nationwide is focused around people. More so, around people to consume and produce. But mostly to consume. Planning for consumable goods and services is largely based on population and demographic projections as well as economic opportunities and growth. The Gauteng Spatial Development Framework (GSDF) of 2011 is a long term spatial framework which reflects a vision and projections for the year 2055. One of the most significant projections is that the population of Gauteng will grow from its current population of approximately 13 million people (Statistics South Africa, 2014) to a projected growth of 30 million people. This means requirements for more jobs, more housing, more natural resources, more technology and more infrastructure.

The City of Tshwane has been expanding in a discontinuous manner not exclusively due to sprawl, but also due to expanding boundaries between 2001 and 2011. These have been political decisions and not planning decisions. As a result, the city form is sprawled and discontinuous. At a size of 6 368 km<sup>2</sup> and a population of just over three million people, Tshwane's population density averages 471 people per km<sup>2</sup>.

Between 1946 and 1996, the geographic area formerly delineated as Tshwane experienced slightly higher population growth as it does now, averaging around 3.7 percent over the 50 years. But then between 1996 and 2001, as in all the other metros of the country, Tshwane experienced a leap of growth, averaging around 18.02 percent the 5 years. As explained above, this is a reflection of the political climate during this time, which allowed population groups previously prohibited from becoming citizens of the old Tshwane from migrating closer to better economic and social opportunities.

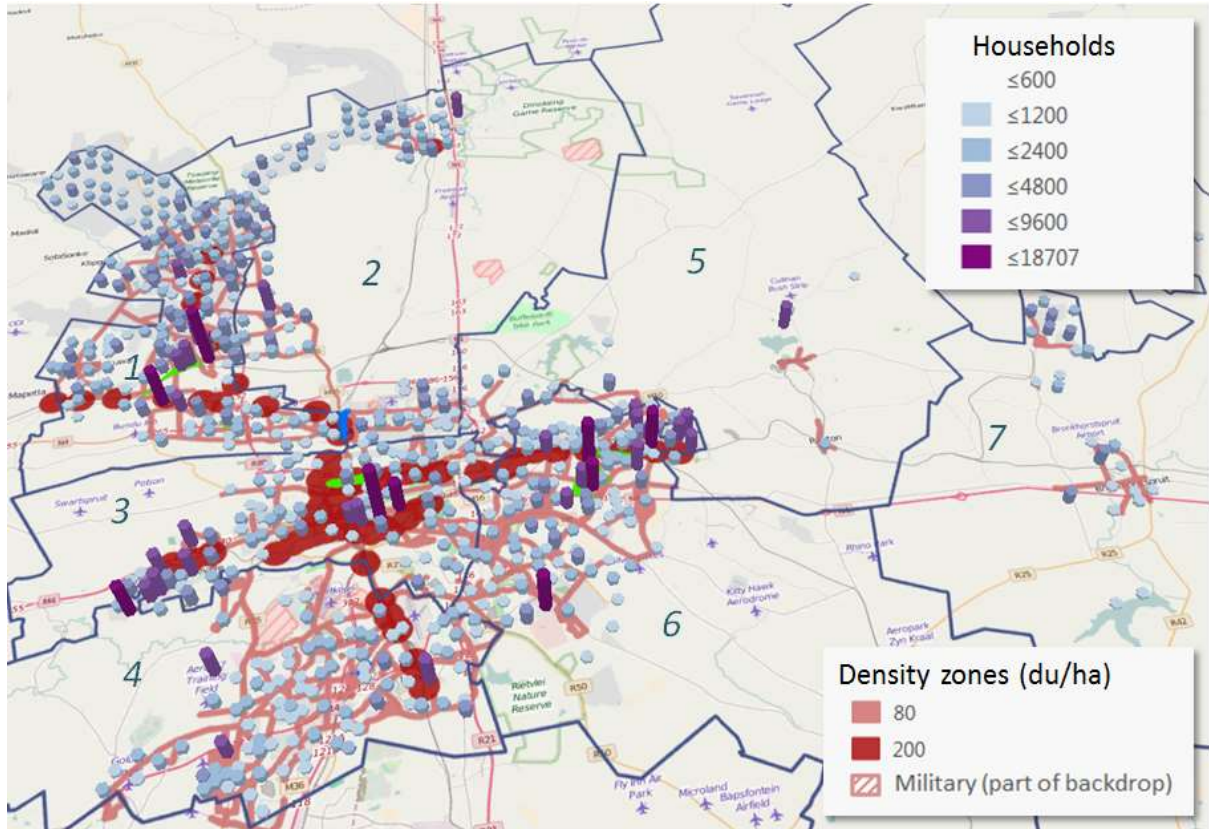
#### ***B.1.2.1 Household distribution and expected growth***

According to the results of the urban simulation undertaken by the CSIR, based on the trend (status quo) scenario with higher population growth rates, the following areas are expected to have the highest number of households:

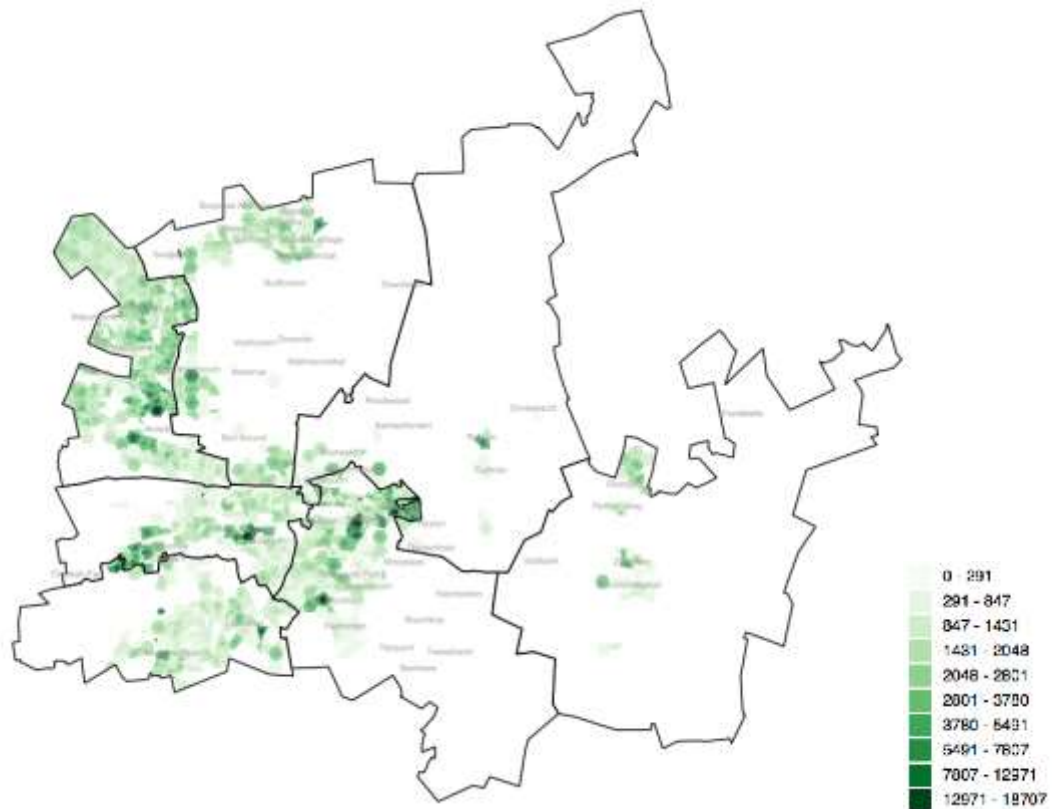
- Atteridgeville
- CBD

- Irene
- Mamelodi
- Mooikloof
- Rosslyn
- Soshanguve
- Temba

**Figure B-6: Projected number of households per modified sub place in 2030, CSIR**



**Figure B-7: Number of household per modified sub place, CSIR**

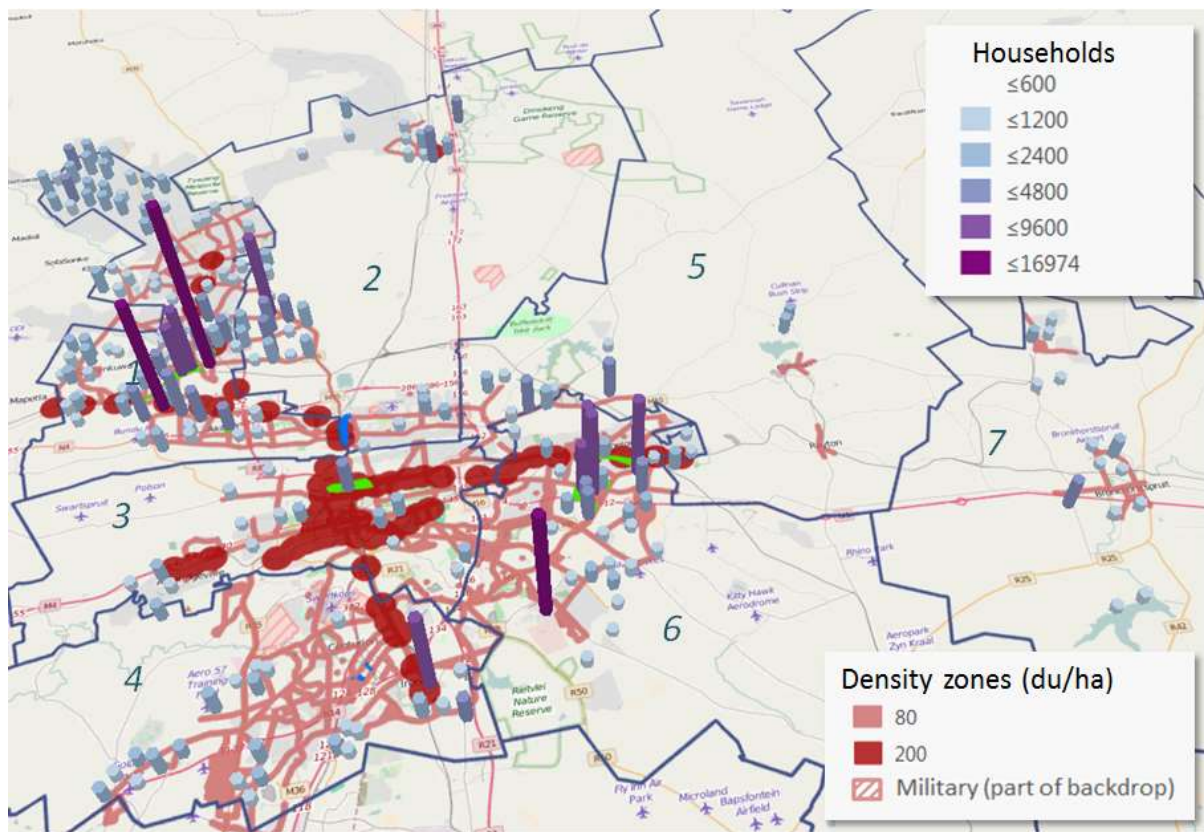


The projections made by the CSIR show that the current urban distribution of households will follow current spatial formations, but with higher densities. To understand the areas that is expected to have the highest growth pressures it would be valuable to investigate the expected growth rate across the City. The areas identified as the areas with the largest household growth rate between 2011 and 2030 are as follow:

- Irene
- Mamelodi
- Mooikloof
- Rosslyn
- Soshanguve
- Temba
- Winterveldt



Figure B-8: Projected growth in households per modified sub place between 2011 and 2030, CSIR



The projected growth in households shows clearly that the population density of the city is to expand in the north-western quadrant of the city, as well as on the eastern to south-eastern periphery. To address the urban sprawl to east, and the influx of people to the north, the city will have to intervene in such a way in which the denser household areas are linked to the areas with most employment opportunities to increase the sustainability of the city structure. Transport capacity will have to play a key role here.

#### **B.1.2.2 Economic Opportunities**

According to the results of the Urban Simulation undertaken in support of the City of Tshwane Vision 2030, based on the trend (status quo) scenario with higher population growth rates, the following nodes has the highest number of jobs:

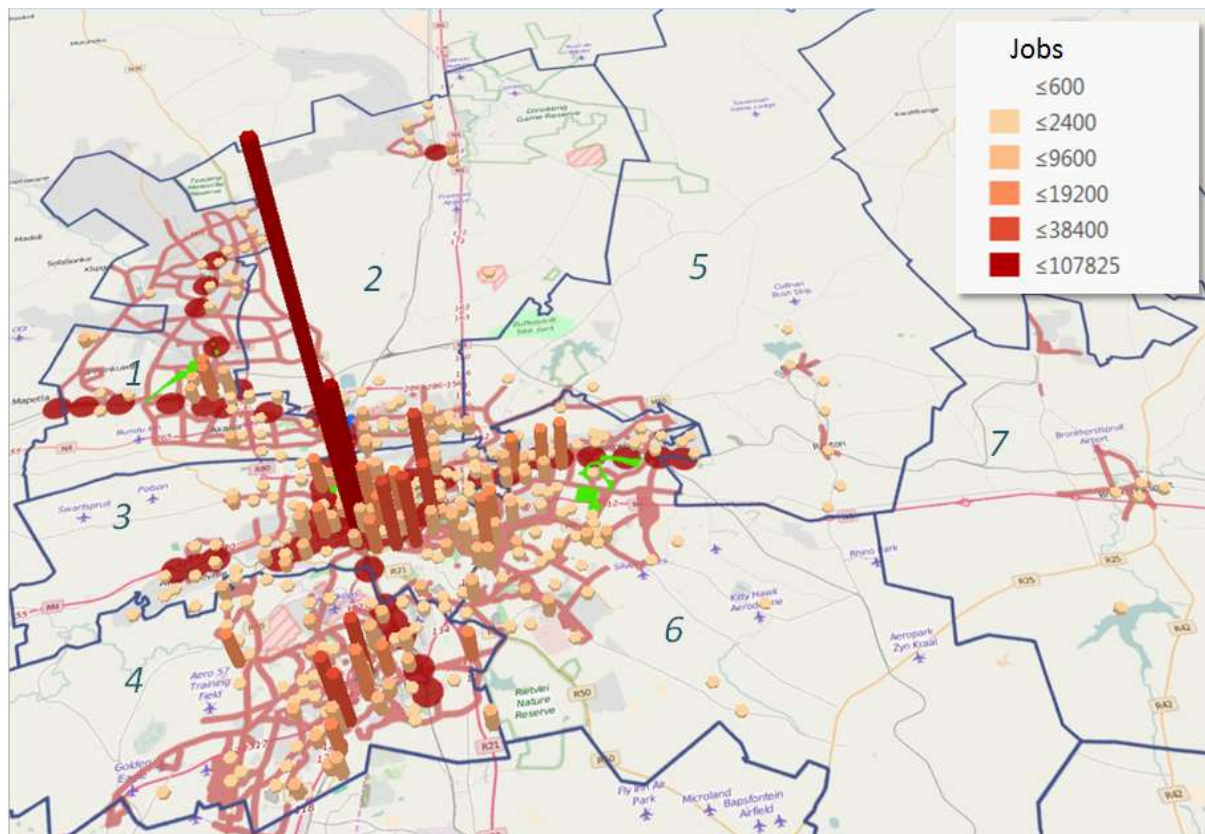
- CBD
- Centurion
- Mamelodi
- Menlyn
- Soshanguve

- Akasia

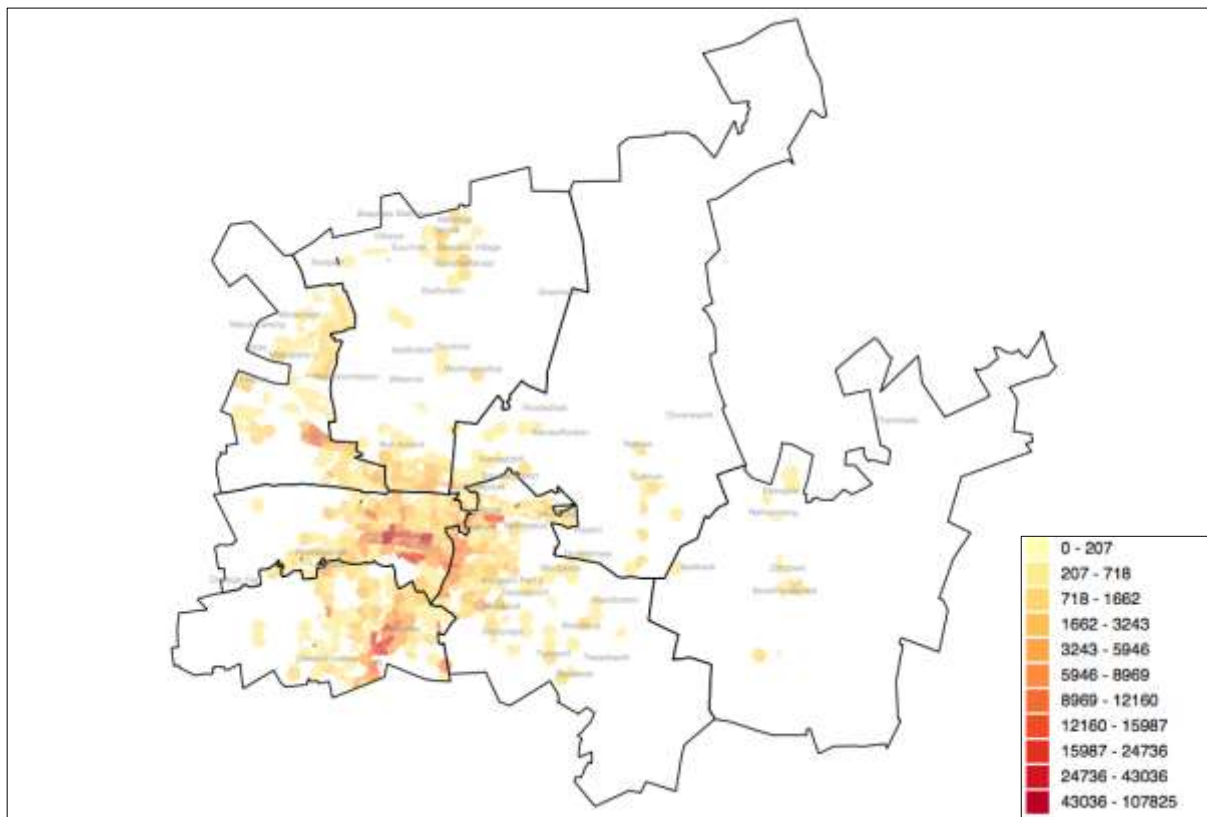
The model run by the CSIR show a very high level of employment opportunities in the Inner City of Tshwane. This result is to be expected based on the UNS concept. The growth model is based on the successful implementation of the Tshwane Inner City Regeneration Strategy (TICRS) which is aimed at repositioning National Department headquarters within the Inner City and re-establishing the City of Excellence as the Capital of South Africa. Other than the CBD, significant nodes such as Menlyn Maine and Centurion also boast large number of job opportunities followed by Mamelodi, Soshanguve and Akasia.

It is important to keep in mind though that these projections are made on the back of current infrastructure realities in terms of transport, specifically. Any specific intervention that will create new capacity or new linkages may therefore result in a different projected outcome.

**Figure B-9: Projected number of jobs per modified sub place in 2030, CSIR**



**Figure B-10: Number of projected job opportunities in 2030, CSIR**

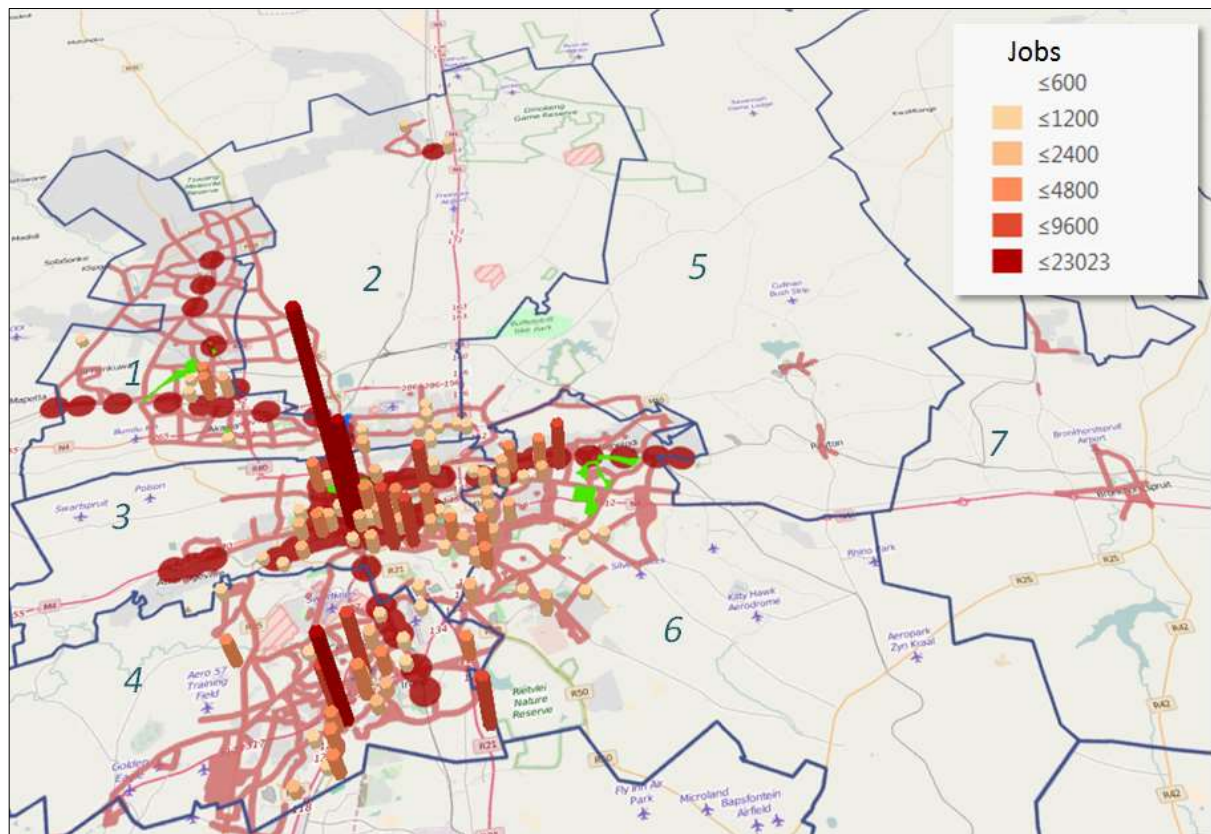


To better understand the projections made by the CSIR it is useful to investigate the nodes which will experience large growth rates in terms of employment opportunities. The growth rate will not only show where development pressure will be experienced in the next few years, but it will also show where the areas are that should link with the nodes identified through the expected household model. The following areas are areas with the highest growth rate of employment opportunities in the City of Tshwane according to the CSIR:

- CBD
- Centurion
- Mamelodi
- Menlyn
- Soshanguve



**Figure B-11: Projected growth in jobs per modified sub place between 2011 and 2030, CSIR**



The area expected to experience the largest growth of employment opportunities is the Inner City of Tshwane (CBD) as a result of the Tshwane Inner City Regeneration Strategy. Other developments that will contribute to the realisation of this expected growth model is the development of Menlyn Maine and the development of Centurion CBD. Economic opportunity growth patterns tend to grow towards the south, where it links with other economic power houses in the province such as Midrand, Sandton and Johannesburg. Other areas that will have a significant growth in economic opportunities – but not nearly as to the degree of the Tshwane and Centurion CBD – is Mamelodi and Rosslyn. Growth to the north of the Magalies Mountain range is restricted by transport capacity that is currently incapable to deal with additional demand.

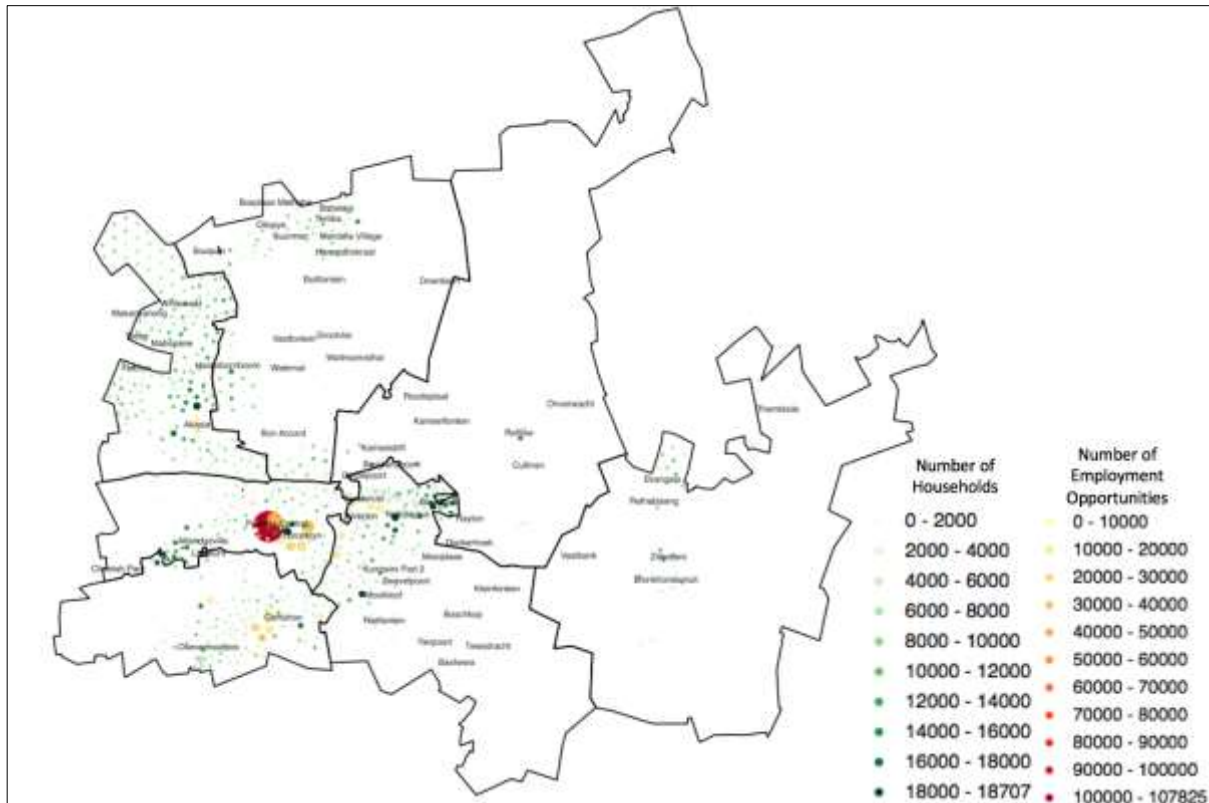
#### ***B.1.2.3 Household distribution vs economic opportunity distribution***

The CSIR has identified areas where growth in household number and growth in economic opportunities can be expected for the next ten to twenty years. To create the ideal Urban Network Structure as defined by Treasury, areas where high volumes of households are expected should be linked to areas where high volumes of employment opportunities are expected. The following figure evaluate the correlation between household distribution and economic opportunity distribution. It shows a clear spatial disjoint between places of living and places of working – typically representing a city facing urban sprawl with economic centres in the middle of the spatial configuration and high



household volumes on the outskirts of the urban spatial structure. To overcome this disjoint between places of living and places of working, the City has started to develop the IRPTN. The IRPTN of the City of Tshwane however links expected housing demand with economic opportunities but still fail to link the growing economy in the southern parts of the city.

**Figure B-12: Number of Households and Job opportunities per modified sub place, CSIR**



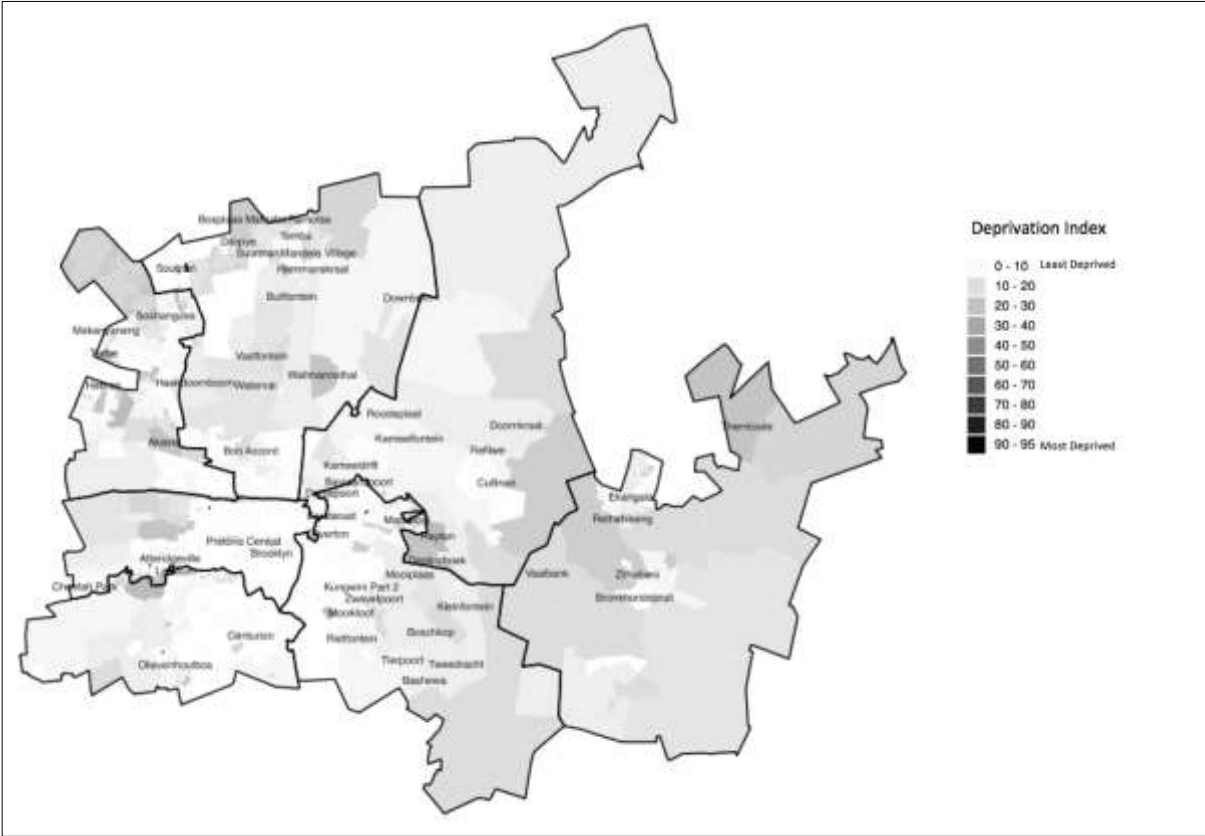
### **B.1.3 Deprived Areas**

Basic service delivery, is not only a fundamental function and responsibility of the City but is reiterated on national level within the National Development Plan as the means to which poverty and inequality will be eliminated. The City of Tshwane has developed a Deprivation Index that measures to what extent the residents of the City are deprived of basic services. The Deprivation Index considers the following indicators:

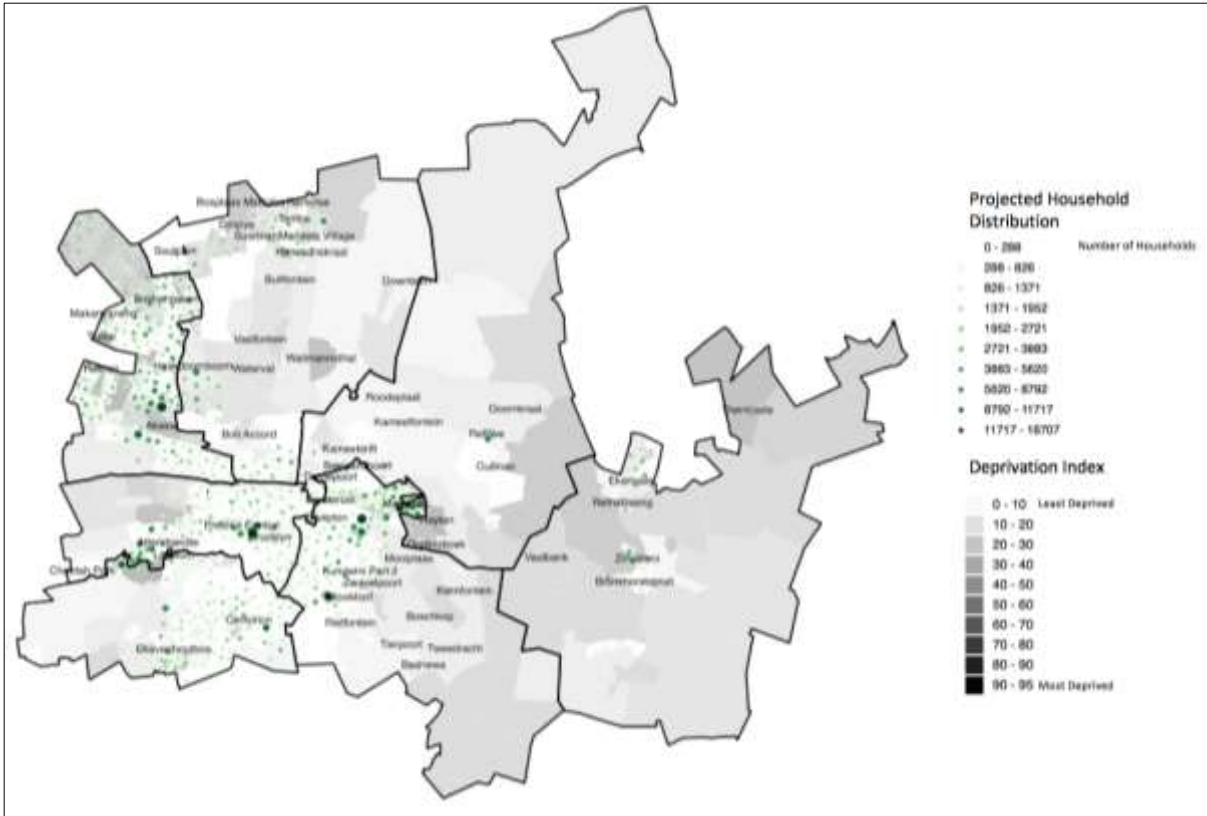
- Household Income (25%)
- Household Size (5%)
- Household Dwelling Type (5%)
- Household Cooking (10%)
- Household Heat (5%)
- Household Light (5%)
- Household Piped Water (20%)
- Household Toilet (20%)
- Household Refuse Disposal (5%)

The spatial distribution to which the Index is linked, is based on the Municipal Small Places as per Census 2011. The figure below shows the deprived areas in the City of Tshwane. Underserved Townships such as Atteridgeville, Temba, Mamelodi and Soshanguve are areas which has the least amount of services and which are in this context most deprived. Areas such as the CBD, Pretoria East and Centurion area is of the least deprived areas in the City.

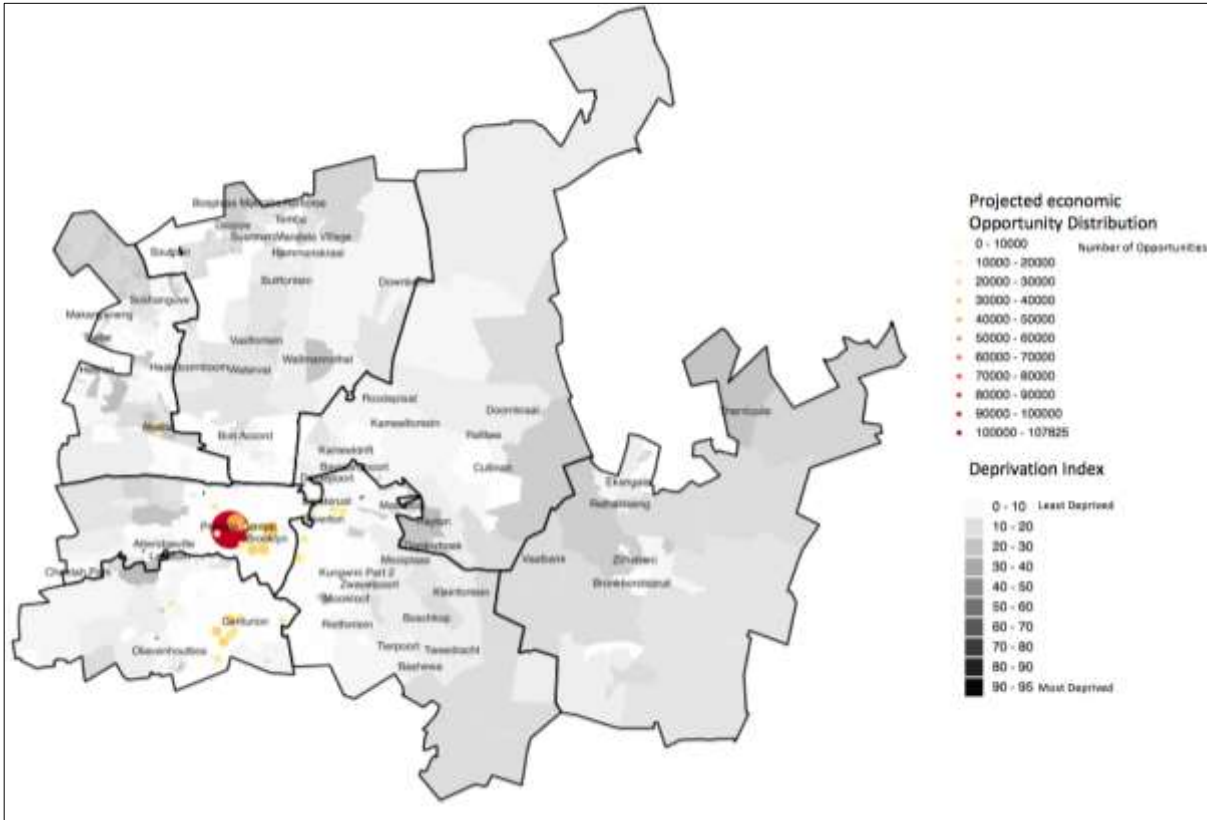
**Figure B-13: City of Tshwane distribution of Deprivation Areas**



**Figure B-14: City of Tshwane Deprivation Index (2017) compared with projected number of households in 2030, CSIR**



**Figure B-15: City of Tshwane Deprivation Index (2017) compared with projected number of economic opportunities in 2030, CSIR**

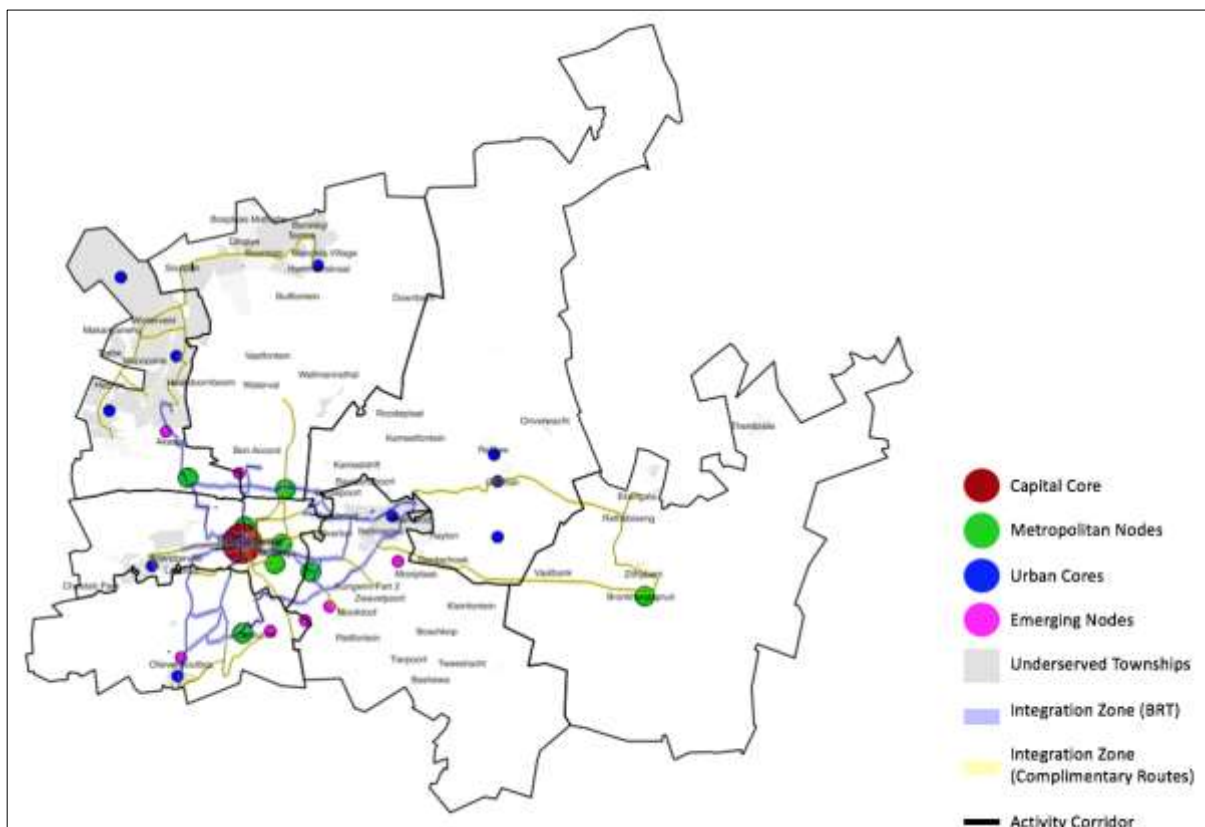


#### ***B.1.4 Alignment between the City of Tshwane's Spatial Vision and expected growth***

The previous sections discussed the relation between expected household growth and expected economic opportunity growth spatially. It also showed the relation between the Sustainable Human Settlements Plan and the Integrated Rapid Transport Network and the said expected growth. To determine whether or not the City's spatial direction, as guided by the MSDF, is in line with future growth and demand, the following section will compare the UNS of the MSDF with the expected household growth and expected economic opportunity growth calculated by the CSIR Urban Simulation as well as the deprivation Index.

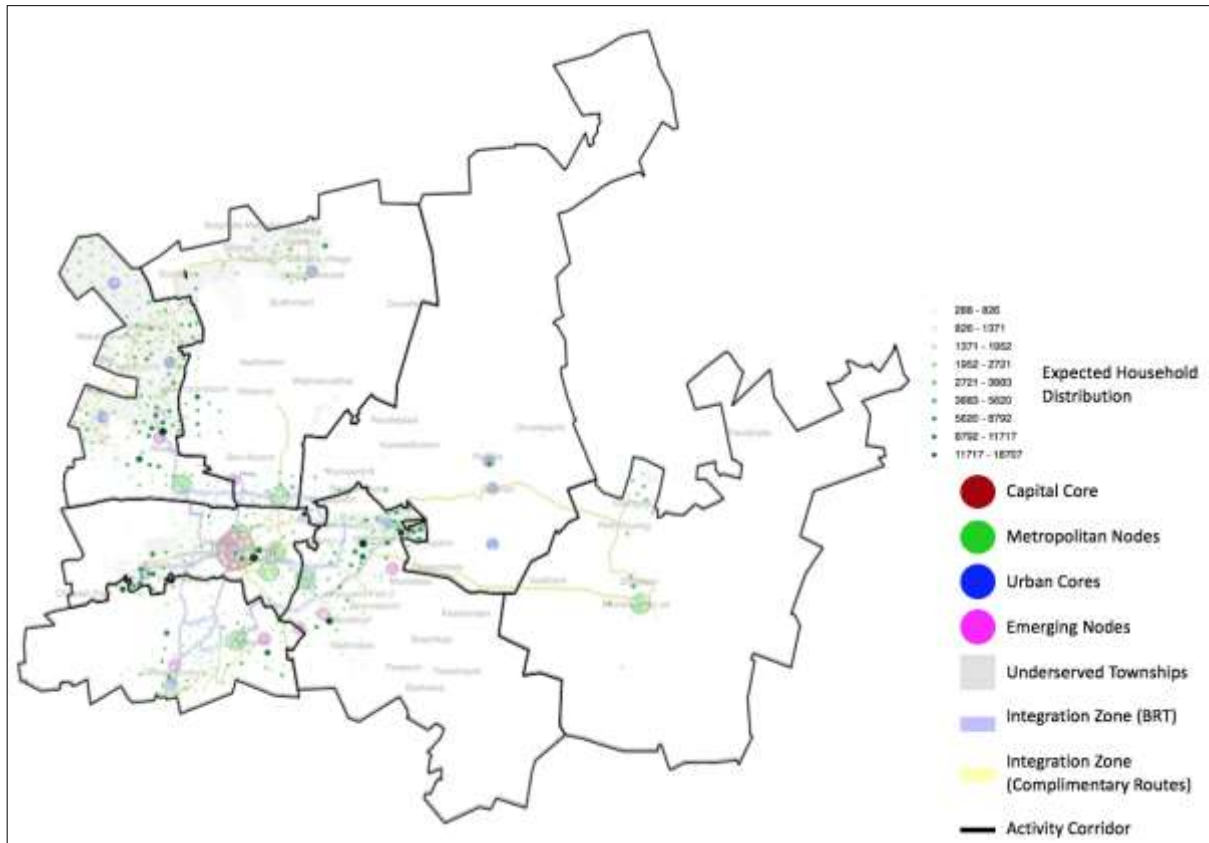
The figure below is a composition of the MSDF, Sustainable Human Settlements Plan and the Integrated Rapid Public Transport Network. It identifies the Capital Core, Metropolitan Nodes, Urban Cores and emerging nodes as per MSDF; The Underserved townships as per the Sustainable Human Settlements Plan; as well as the Activity Cores, as per the Integrated Rapid Public Transport Network. The Integration Zone was derived from creating a 500m buffer along the activity corridors. To guide spatial restructuring in such a way that the city operated as optimal as possible, a 500m buffer has been selected.

**Figure B-16: Metropolitan Spatial Development Framework, 2012 in terms of Treasury Urban Network Strategy**



The previous figure shows how the City should look in 2030 if the MSDF guides development. The study done by the CSIR identified the household distribution across the city. Figure B-17 shows the correlation between expected growth in households the City of Tshwane compared to the existing spatial planning direction of the City.

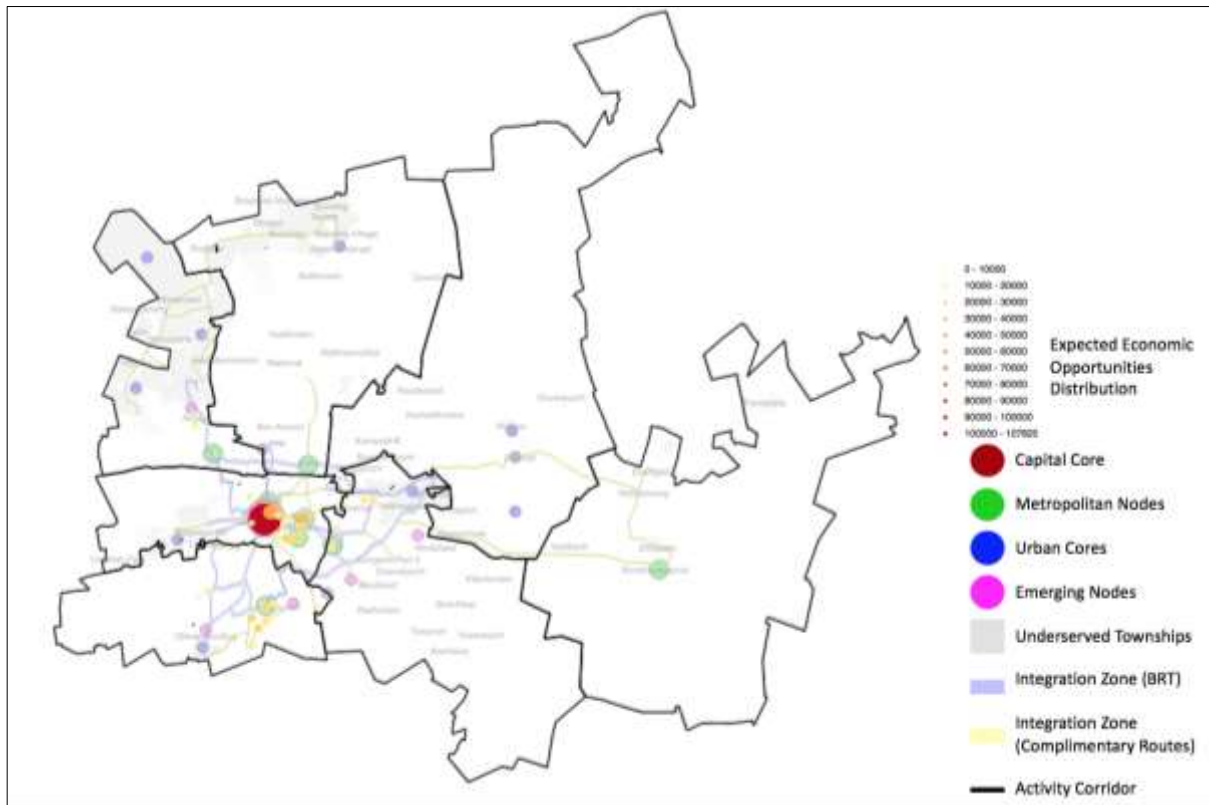
**Figure B-17: Expected household distribution in 2030 compared with current MSDF direction, CSIR**



The city will have to reconsider areas such as Akasia, Mooikloof and Nellmapius as future Urban Cores. Bronkhorstspuit also needs reconsideration as it is identified as a Metropolitan Node but when compared to expected residential density, it does not justify such high priority.

The MSDF has identified its hierarchy of nodes based on specific nodal characteristics such as land use mixture, specific activities and densities. A major component of the said nodes is their economic component – otherwise expressed the node's ability to stimulate the economy. A measure of this is the number of job opportunities within a specific area. The figure below shows the correlation between the MSDF's nodes and expected future job opportunities. From the figure one can see a high correlation between future nodes of economic opportunity and current nodes of economic opportunity.

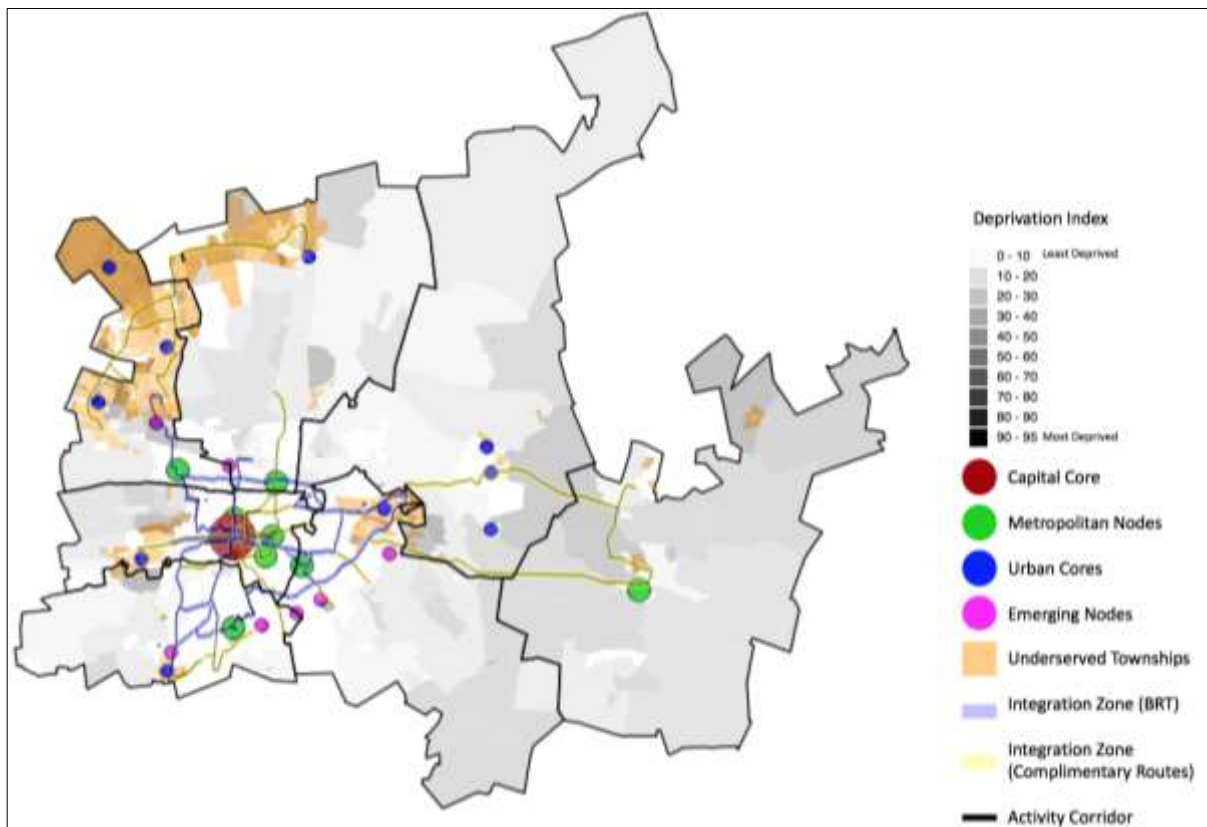
**Figure B-18: Expected economic opportunity distribution in 2030 compared with current MSDF direction, CSIR**



The figure below shows the correlation between the deprived areas in the City of Tshwane compared to the existing spatial planning direction of the City:



**Figure B-19: Deprivation Index compared with current MSDF direction, CSIR**



### ***B.1.5 Activity Corridors and Integration Zones***

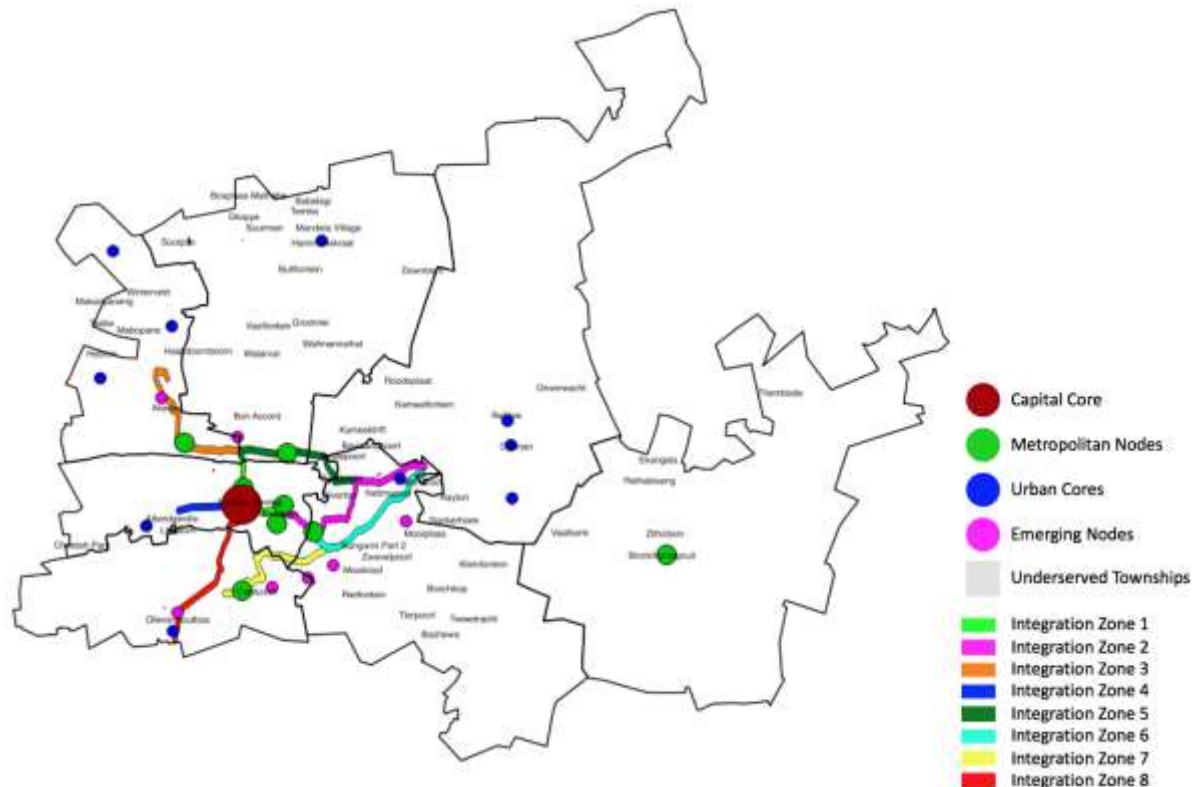
The City's IRPTN Network makes provision for the rollout of a public transport network which aims to link underserved townships with urban cores – a strategy that aligns with the Urban Network Structure. This concept of linkage is expanded by the City by encouraging development along the IRPTN Network by means of densification and compaction: in essence this approach aims to:

- Enable fruitful spending;
- Discouraging sprawl;
- Secure land value;
- Optimising urban infrastructure usage;
- Stimulate economic activity in areas with economic potential; and
- Conserve valuable agricultural land.

The IRPTN identifies these linkages and are referred to as Activity Corridors. The Urban network structure interprets the concept of activity around linkages between places of residence to economic nodes, by defining the said area as Integration Zone. Development along the Integration Zone is ideal from the City's perspective, but also hold various and diverse advantages for the citizens and users of Tshwane.

To realise the ideology of the Urban Network Structure as a remedy for the dispersed, underserved, deprived residue of the Apartheid Urban Network Structure and to unlock economic opportunities, the City must stimulate development along Activity Corridors i.e. the Integration Zones. However, the City is constrained financially and should prioritise investment in the Integration Zones. The following figure will show Activity Corridor and Integration Zones of the City of Tshwane which should be used as financial prioritisation tool:

**Figure B-20: City of Tshwane Integration Zones**



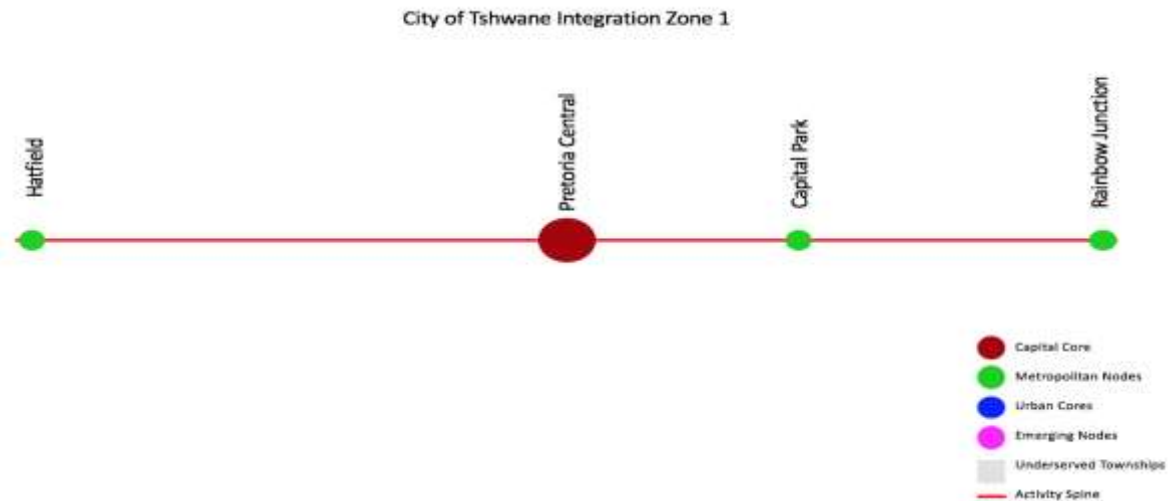
**Table B-1: Categorization of Integration Zones**

BRT Line	Integration Zone	Infrastructure construction Phasing
Integration Zone 1	Line 2A Line 1A	Phase 1A Phase 1B Phase 1C
Integration Zone 2	Line 2B Line 2C Line 2D	Phase 1D Phase 1E Phase 1I
Integration Zone 3	Line 1B Line 1C	Phase 1F Phase 1G
Integration Zone 4	Line 3	Phase 1H
Integration Zone 5	Line 4	Phase 2.1
Integration Zone 6	Line 5a Line 11	Phase 2A Phase 2B
Integration Zone 7	Line 5B	Phase 2C
Integration Zone 8	Line 6	Phase 3



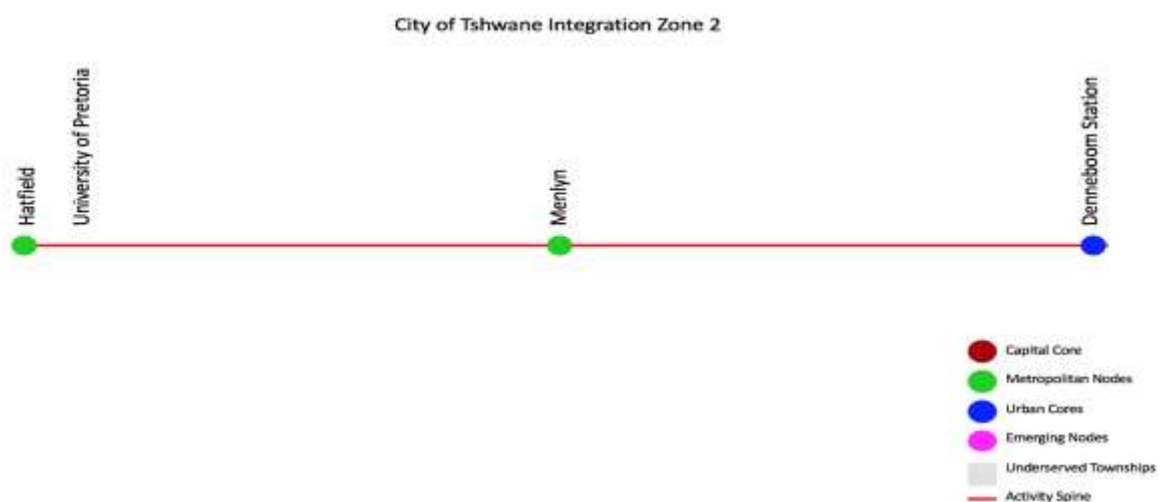
Integration Zone 1 is located along BRT line 2A and line 1A which runs from Pretoria Central to Hatfield, and Hatfield to Mayville via Pretoria Central respectively. It links The Metropolitan Node of Hatfield with The Urban Core (CBD) and Capital Park after which it extends to the north up to Rainbow Junction.

**Figure B-21: Conceptual representation of Integration Zone 1 and Urban Node linkages**



Integration Zone 2 is located along BRT line 2B and Line 2C which runs from University of Pretoria to Menlyn and Menlyn to Denneboom Station respectively. In effect, it links the Metropolitan Node of Hatfield with the Metropolitan Node of Menlyn and terminates in the Denneboom Station which is the Urban Core of Mamelodi.

**Figure B-22: Conceptual representation of Integration Zone 2 and Urban Node linkages**



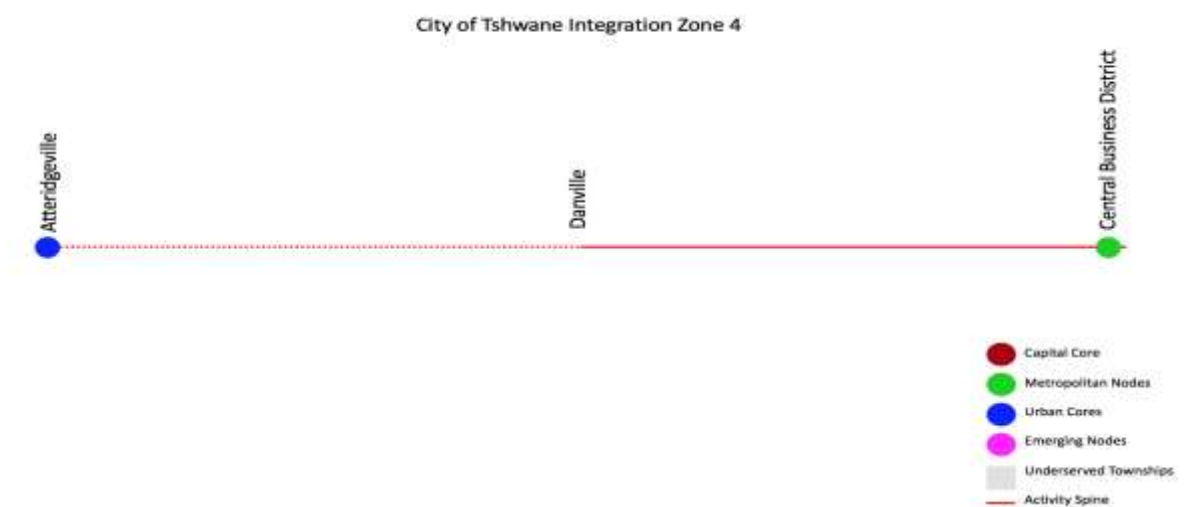
Integration Zone 3 is located along BRT line 1B and line 1C which runs from Rainbow Junction to Akasia and Akasia to Kopanong respectively. In effect, it links the Emerging Node of Kopanong with the Metropolitan Node of Akasia and terminates in Rainbow Junction which becomes the terminus to other important nodes in the City.

**Figure B-23: Conceptual representation of Integration Zone 3 and Urban Node linkages**



Integration Zone 4 is located along BRT line 3 which runs from the Central Business District of Tshwane towards Atteridgeville. It aims to link the Urban core of Atteridgeville with the Capital Core. Atteridgeville is one of the identified underserved Townships and presents large quantities of households in 2030.

**Figure B-24: Conceptual representation of Integration Zone 4 and Urban Node linkages**



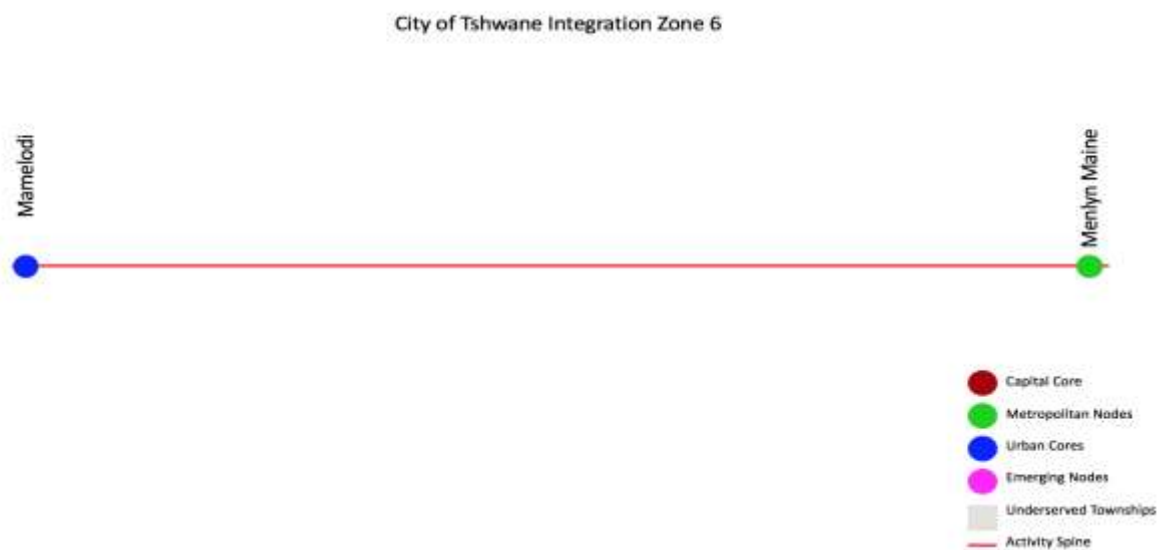
Integration Zone 5 is located along BRT line 4 which runs from Denneboom to Rainbow Junction. It links to Integration Zone 3 which extends up to Kopanong in the North West of the City, Integration Zone 1 which links Rainbow Junction to the CBD and Integration Zone 2 which links to Denneboom and Menlyn. Integration Zone 5 runs from Rainbow Junction through the Metropolitan Node of Magalieskruin, through to Denneboom station.

**Figure B-25: Conceptual representation of Integration Zone 5 and Urban Node linkages**



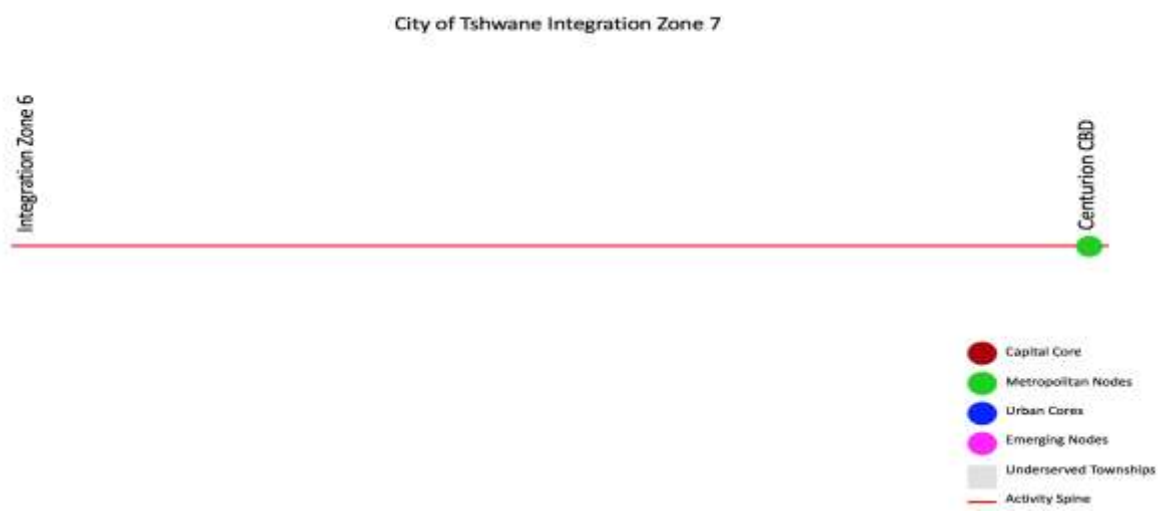
Integration Zone 6 is located along BRT line 5A and Line 11 which runs from Mahube Valley to Garsfontein and Menlyn to Garsfontein respectively. It aims to link the Mamelodi Urban Core to the Underserved Township of Nellmapius, Silverlakes, Garsfontein and then terminate in the Metropolitan Node of Menlyn Maine.

**Figure B-26: Conceptual representation of Integration Zone 6 and Urban Node linkages**



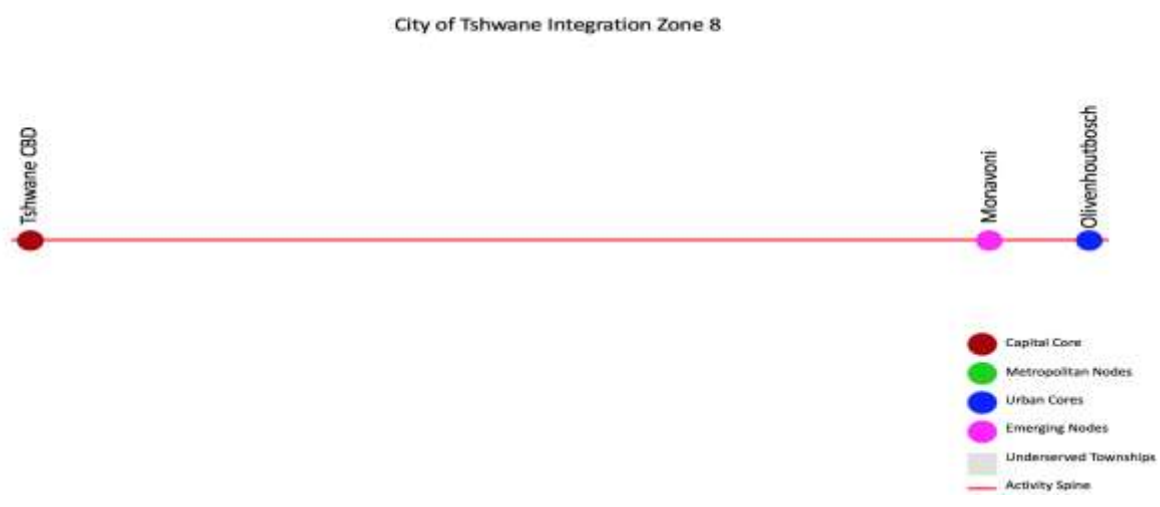
Integration Zone 7 is located along BRT line 5B which runs from Garsfontein to Centurion CBD. It links Integration Zone 6, which enable linkages to Menlyn Maine and Mamelodi to the Centurion CBD. It fails to link the following emerging nodes: Woodlands, Wingate Park and Irene.

Figure B-27: Conceptual representation of Integration Zone 7 and Urban Node linkages



Integration Zone 8 is located along BRT line 6 which runs from the CBD of Tshwane to Olievenhoutbosch. It links the Capital Core of Tshwane to the underserved Township and Urban Core of Olievenhoutbosch as well as the Emerging Node of Monavoni.

Figure B-28: Conceptual representation of Integration Zone 8 and Urban Node linkages



## B.2 Local Area Planning

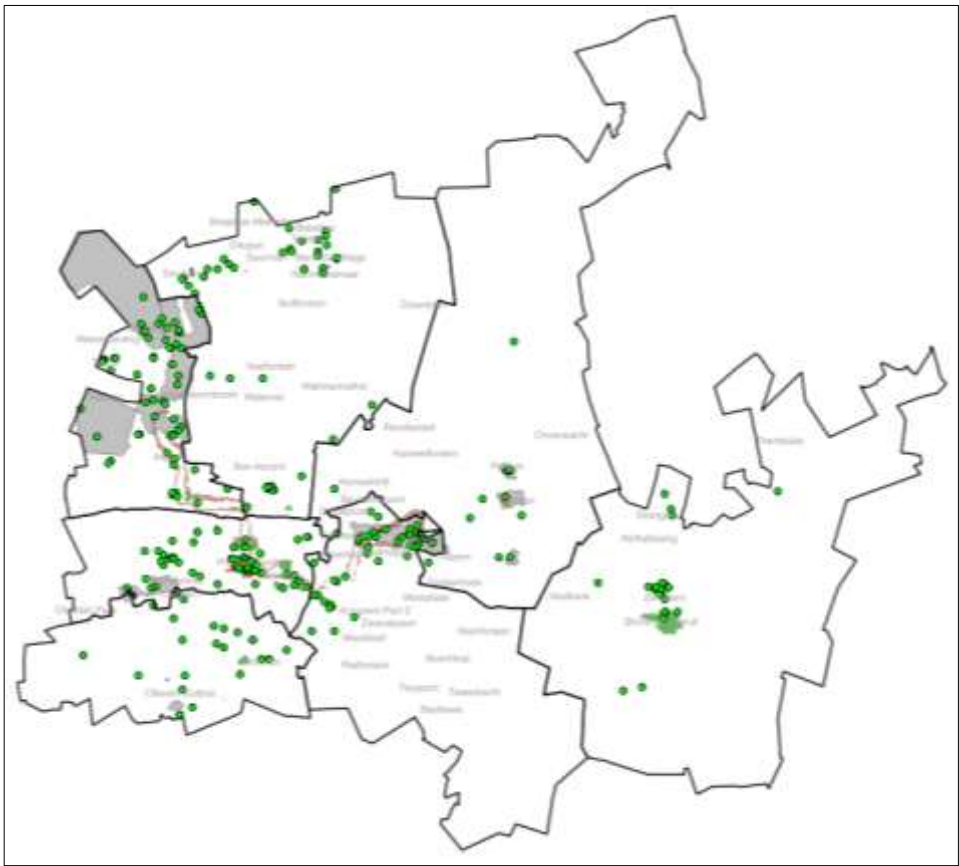
### B.2.1 Spatial Distribution of City of Tshwane Projects per Department

To evaluate the vast number of projects funded by the City of Tshwane in a palatable manner on a local level, the City has evaluated the projects grouped per department in terms of the two dominant spatial lenses within this document namely the Urban Network Strategy and the BEPP Priority Zones.

#### B.2.1.1 UNS Structure vs City of Tshwane Projects

The following figure shows the City of Tshwane Approved MTREF projects in relation to the UNS of the City. It could be derived that the City is broadly aligning its capital spending in terms of the UNS – Especially in the Urban Core and the Underserved Townships. Clear spatial clustering along the Metropolitan nodes and Emerging Nodes area lacking. The City should act as an agent for change within these nodes, approaching developers and other government entities to stimulate development in nodes where development is most desired from an urban structuring and management point of view.

**Figure B-29: City of Tshwane MTREF Projects with elation to the UNS**



The table below shows the distribution of capital over the MTREF per department per the Urban Structuring Network. 48% of the City's capital budget do not align with the UNS whereas 19% of the

capital is spent in Integration Zones. This is understandable as the IRPTN projects is significantly large with respect to the total budget. 18% Of the City's Capital spending is in Underserved areas which means that only 14% of the budget remains to stimulate desired economic development in areas where economic gravity should occur i.e. Metropolitan nodes and Emerging Nodes.

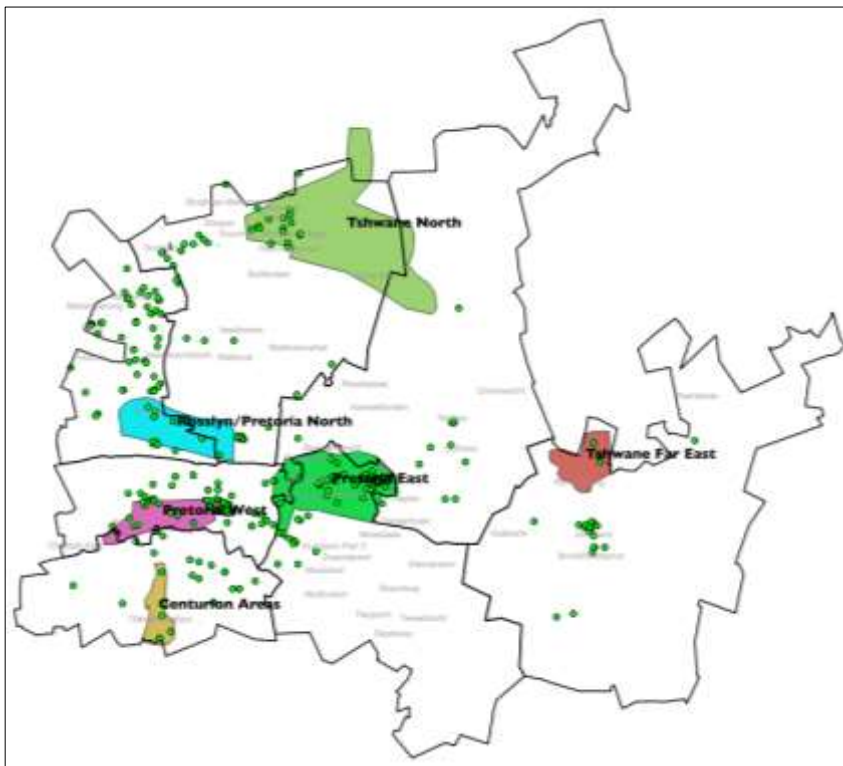
**Table B-2: City of Tshwane total Capital spending per department per the Urban Network Strategy**

Department	No Intersect	Integrati on Zone	Under-serviced Townshi p	Not Mapped	Urban Hub	Secondar y Hub	Total/ Dept	% / Dep t
Airports	R103 000 000	R-	R-	R-	R-	R-	R103 000 000	1%
Audit and Risk	R24 000 000	R-	R-	R15 000 000	R-	R-	R39 000 000	0%
Community and Social Development Services	R24 000 000	R-	R44 000 000	R-	R-	R-	R68 000 000	1%
Customer Relations Management	R22 000 000	R-	R-	R-	R-	R-	R22 000 000	0%
Economic Development and Spatial Planning	R183 000 000	R118 912 700	R-	R-	R49 178 134	R-	R351 090 834	3%
Electricity	R1 032 176 501	R206 896 715	R141 891 124	R-	R198 309 709	R87 163 301	R1 666 437 349	13%
Emergency Services	R7 196 012	R45 034 757	R34 923 077	R-	R9 923 077	R923 077	R98 000 000	1%
Environment and Agricultural Management	R80 278 428	R6 377 546	R20 929 740	R19 200 000	R-	R714 286	R127 500 000	1%
Financial Services	R-	R26 000 000	R-	R40 000 000	R26 000 000	R-	R92 000 000	1%
Group Property Management	R14 508 780	R-	R491 220	R-	R-	R-	R15 000 000	0%
Health	R5 600 000	R36 500 000	R47 736 000	R-	R6 000 000	R7 000 000	R102 836 000	1%
Housing and Human Settlement	R1 567 549 163	R236 242 613	R945 053 088	R-	R-	R-	R2 748 844 864	22%
Information and Communication Technology	R36 000 000	R85 000 005	R-	R184 000 000	R85 000 000	R-	R390 000 005	3%
Metro Police Services	R-	R36 000 000	R-	R-	R23 489 083	R-	R59 489 083	0%
Office of the City Manager	R1 522 000 000	R-	R30 000 000	R85 000 000	R-	R-	R1 637 000 000	13%
Public Transport	R217 854 837	R1 342 854 247	R166 997 306	R-	R111 127 371	R157 004 065	R1 995 837 826	16%
Regional Operations and Coordination	R-	R-	R-	R15 000 000	R-	R-	R15 000 000	0%
Roads and Stormwater	R566 892 211	R138 412 182	R630 586 511	R14 920 000	R1 041 030	R518 816	R1 352 370 750	11%
Sports and Recreational Services	R10 000 000	R104 514 013	R64 000 002	R-	R34 514 000	R-	R213 028 015	2%
Tshwane Leadership and Management Academy	R17 066 293	R1 312 500	R2 621 207	R-	R-	R-	R21 000 000	0%

Department	No Intersect	Integrati on Zone	Under-serviced Township	Not Mapped	Urban Hub	Secondary Hub	Total/ Dept	% / Dep t
Water and Sanitation	R735 168 189	R52 105 506	R110 189 363	R689 091 590	R8 669 076	R63 884 772	R1 659 108 496	13%
Total per UNS Element	R6 168 290 415	R2 436 162 784	R2 239 418 637	R1 062 211 590	R553 251 479	R317 208 316	R12 776 543 220	100 %
% Per UNS Element	48%	19%	18%	8%	4%	2%	100%	

### **B.2.1.2 BEPP Priority Zones vs City of Tshwane Projects**

**Figure B-30: City of Tshwane Projects in terms of BEPP Priority Zones**



From Figure B-30 above one can derive that City of Tshwane Projects are not ideally aligned with the BEPP Prioritisation Zones. The most number of projects are however in Tshwane North and Pretoria East. The following table shows the capital investment over the MTREF per department per BEPP Priority Zone.

52 % of the City's projects do not intersect with a BEPP Priority Zone. Only 8% of the City's Capital is spent Roslyn. It is interesting to note that only 1% of the City's Capital spending occurs in Centurion – one of the most promising emerging economic nodes of the City. Further proportions of capital investment in the other BEPP Prioritisation Zones are in the same order. It is suggested that prioritisation between the various BEPP Priority Zones are established to guide spending that occurs within the BEPP Priority Zones.

Table B-3: City of Tshwane total Capital spending per department per the BEPP Priority Zones

Department	NoIntersect	NotMapped	Roslyn/PTA	TshwaneNorth	PretoriaEast	InnerCity	PretoriaWest	TshwaneEast	CenturionAreas	TotalDepartment	Total%Department
Airports	R1844500000	R150000000	R-0	R-0	R-0	R-0	R-0	R-0	R-0	R844500000	1%
AuditandRisk	R-0	R150000000	R-0	R-0	R-0	R-0	R240000000	R-0	R-0	R390000000	0%
Community and Social Development	R134000000	R-0	R-0	R-0	R-0	R-0	R-0	R-0	R-0	R340000000	0%
Customer Relations Management	R150000000	R-0	R-0	R-0	R-0	R-0	R-0	R-0	R-0	R150000000	0%
Economic Development and Spatial Planning	R194580000	R-0	R200000000	R-0	R-0	R400000000	R170000000	R-0	R-0	R314000000	3%
Electricity	R100000000	R150000000	R280000000	R190000000	R156000000	R540000000	R238900000	R159000000	R101000000	R158874100	14%
Emergency Services	R150000000	R-0	R200000000	R-0	R137000000	R259000000	R503000000	R692000000	R-0	R550000000	0%
Environment and Agricultural Management	R194000000	R220000000	R200000000	R249000000	R190000000	R-0	R100000000	R166000000	R-0	R146000000	1%
Financial Services	R-0	R290000000	R-0	R-0	R-0	R200000000	R-0	R-0	R-0	R550000000	0%
Group Property Management	R227200000	R-0	R230000000	R-0	R130000000	R-0	R-0	R-0	R-0	R250000000	0%
Health	R100000000	R-0	R200000000	R-0	R380000000	R200000000	R-0	R-0	R-0	R870000000	1%
Housing and Human Settlement	R277000000	R-0	R400000000	R500000000	R700000000	R-0	R440000000	R-0	R300000000	R193100000	24%
Information and Communication	R-0	R197000000	R-0	R-0	R-0	R-0	R360000000	R-0	R-0	R314500000	3%
Metro Police Services	R-0	R-0	R-0	R-0	R-0	R300000000	R-0	R-0	R-0	R330000000	0%
Office of the City Manager	R-0	R195000000	R480000000	R800000000	R300000000	R-0	R-0	R800000000	R-0	R566000000	13%
Public Transport	R163900000	R-0	R220000000	R-0	R181000000	R280000000	R300000000	R-0	R-0	R501000000	13%
Regional Operations and Coordination	R-0	R300000000	R-0	R-0	R-0	R-0	R-0	R-0	R-0	R100000000	0%
Roads and Stormwater	R198100000	R400000000	R200000000	R700000000	R360000000	R700000000	R380000000	R400000000	R190000000	R228100000	11%
Sports and Recreational Services	R805990000	R-0	R-0	R-0	R100000000	R300000000	R-0	R-0	R-0	R188000000	2%
Tshwane Leadership and Management Academy	R220000000	R-0	R-0	R-0	R-0	R-0	R-0	R-0	R-0	R210000000	0%
Water and Sanitation	R167700000	R160000000	R110000000	R100000000	R120000000	R200000000	R900000000	R500000000	R300000000	R349100000	14%
Total Per BEPP Area	R258360000	R109700000	R294800000	R100000000	R250000000	R691000000	R150000000	R950000000	R630000000	R1947000000	100%
% Per BEPP Area	52%	9%	8%	7%	7%	6%	5%	5%	1%	100%	



### **B.2.2 Prioritisation Criteria and Methodology**

*“Utility analysis is in effect a semi-quantitative means of ‘trading off’ the effects of implementing any given scheme, that is, the relative desirability of achieving a given set of goals and objectives and the degree to which this target system is fulfilled, are combined to give a measure of how far each scheme will go in meeting all or any of the goals and objectives, and so provides the answer to the question of effectiveness of the scheme. The distinguishing feature of utility analysis is that it can handle financial, quantitative and qualitative effects simultaneously. Consequently, all of the impacts or effects of a project which can be envisaged can be included in the analysis.”* – Evaluation of Transportation Projects – Utility Analysis; JV Baxa; January 1981; CSIR.

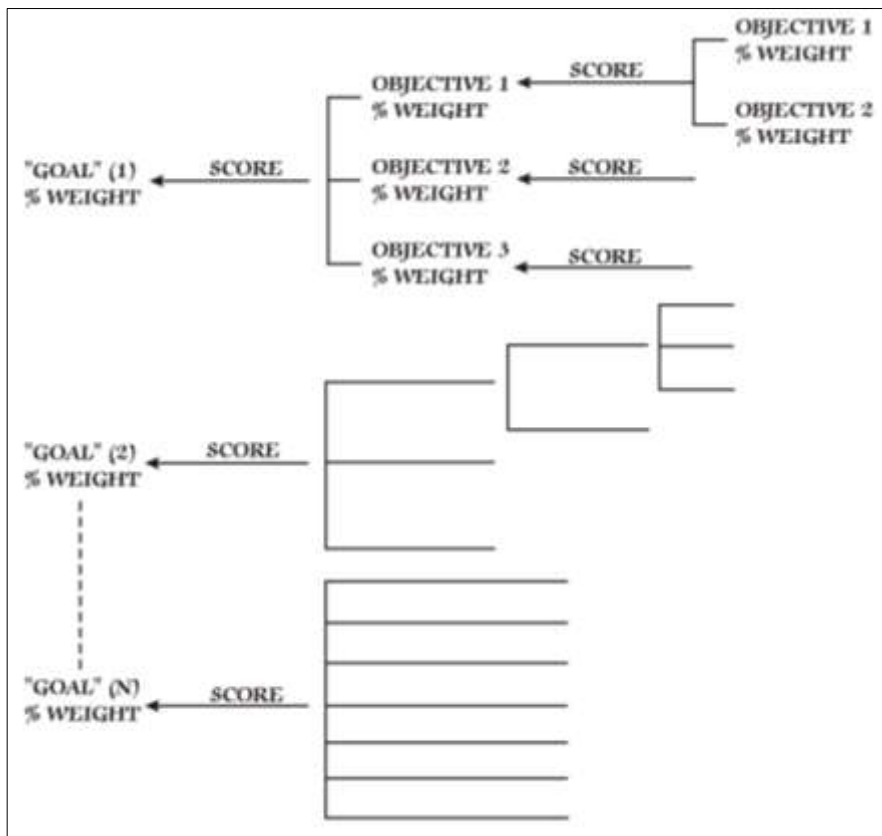
A utility analysis provides a structured input for the decision-maker. It provides an indication to the overall effectiveness with which alternatives will satisfy the complex target system. The process begins by defining the problem in a structured way. As already mentioned, the problem definition can incorporate diverse inputs, which covers quantitative, qualitative and financial factors. Firstly, certain goals that should ultimately be addressed must be established. For each of these goals, relevant objectives then should be established. Each objective requires a specific input, which will be modelled based on a predetermined method or value function, to provide an output.

The following basic steps apply in the utility analysis:

- Define the relative preferences for each goal that was set out;
- Define relative preferences for each objective that was set out;
- Weight each criterion that was set up to reflect their relative importance.

By following these steps, each alternative can be ‘scored’ (Figure B-31) to attain a measurement of performance that can be translated into several points. The points system with which each criterion is weighted, as indicated on the matrix of utilities, is a number between 0 and 100.

Figure B-31: Multi-criteria analysis methodology



This utility analysis, otherwise known as a Multi-Criteria Analysis (MCA), is an established technique for the appraisal of multiple alternatives and was since utilised for the purposes of facilitating an objective and quantifiable prioritisation process. The following methodology was applied:

- An explicit set of principles was defined to inform and guide the prioritisation framework;
- In line with these principles, a set of criteria was defined by which to characterise each of the Nodes, and a weighting assigned to each of the respective criteria;
- A rating scale was determined to quantitatively rank the Nodes i.e. a numerical score on a strength of preference scale, where the preferable the option, the higher the score.
- The framework was populated and the rating scale applied to score and rank each Nodes.

#### ***B.2.2.1 Principles to Guide the Prioritisation Framework***

These principles can be used in prioritising Urban Cores, BEPP Integration Zones and Metropolitan Nodes.

In line with the City of Tshwane's Metropolitan Spatial Development Framework, the prioritisation of the Nodes is based on the following principles:

##### ***The Development of a Compact City***

Compaction and densification are core principles of the MSDF. In line with this, the theory of the compact city underpins the prioritisation framework. Compact cities are characterized by densified

development patterns, public transport connectivity, and accessibility to local services and employment opportunities.

For the purposes of the prioritisation framework, a compact city buffer has been defined i.e. a 25km radius from the Capital Core (the CBD). This radius is typically defined to ensure that public transit commute times to places of employment are limited to 20 minutes or less.

#### *The Development of Transit Oriented Precincts*

In line with the principles of compaction and densification, the spatial policy outlined within the City of Tshwane's MSDF calls for Transit Oriented Development i.e. as a mechanism to develop a more compact city and to optimize the potential and infrastructure capacity of nodes.

The identification of potential TOD precincts has thus been identified as a critical component of the prioritisation framework.

#### *Social Upliftment*

As former under serviced township areas, the Nodes represent areas of significant need, particularly with regards to the provision of, and access to, basic services and social infrastructure, a strategic objective of the City of Tshwane and an enabling component of the Development Intervention Portfolios. An understanding of current service provision within the Nodes is therefore central to identifying areas with the greatest need for investment.

#### *Capitalizing on Existing Spatial Opportunities*

In addition to identifying areas of greatest social need, the identification of areas with the greatest immediate opportunities is also considered a significant aspect of the prioritisation process i.e. areas in which the development objectives of the City are readily achievable or may be expected to have the most significant impact i.e. within the constraints of limited financial resources.

#### **B.2.2.2 Prioritisation Criteria**

For a MCA analysis to be robust, the objectives to be evaluated and scored should have issues associated with them that are measurable. The more quantifiable elements there are, the more credibility there is to the overall prioritisation process that is followed. Fortunately for Tshwane, there is an abundance of spatially referenced, recently updated, relevant data that can be used.

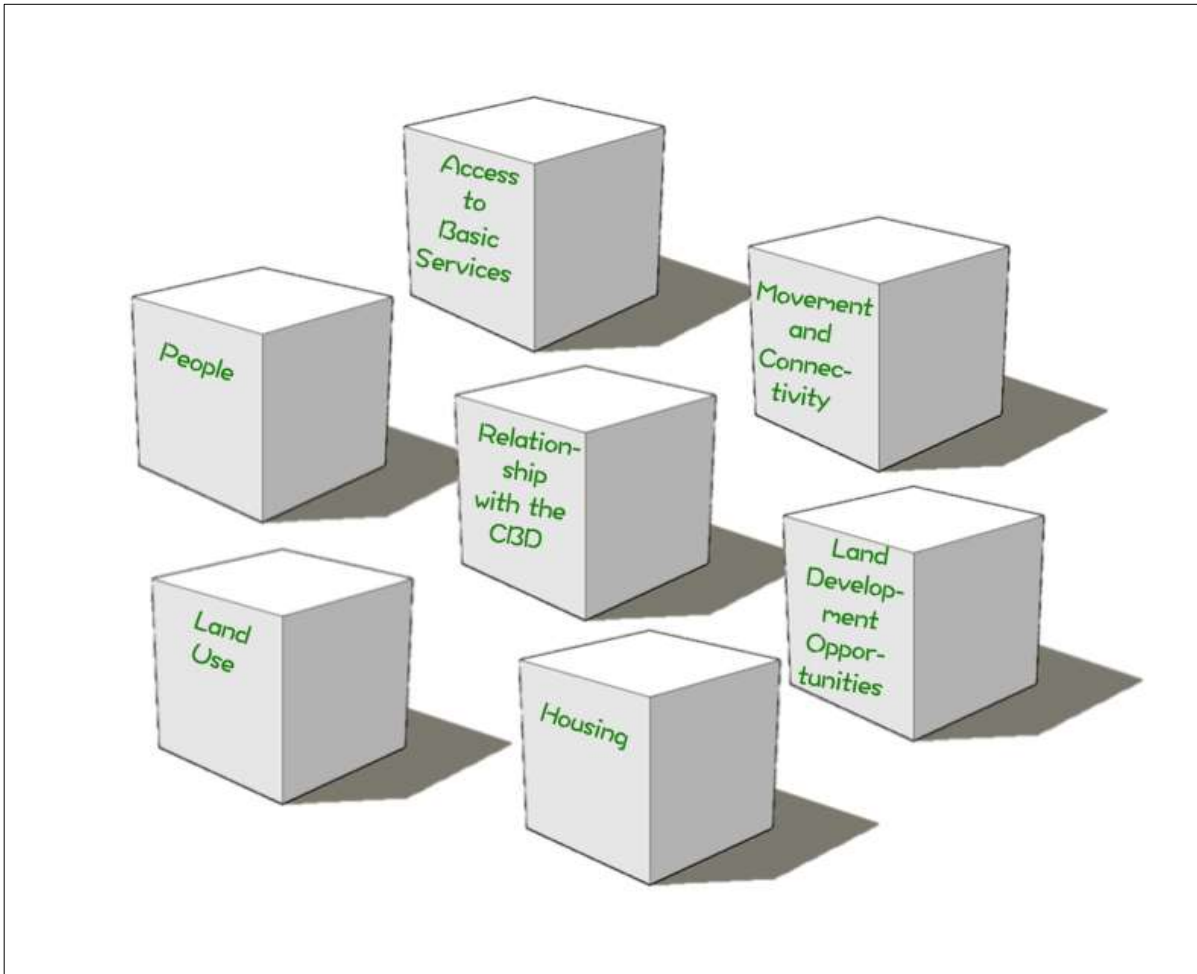
The prioritisation themes (Figure B-32) were developed to represent the principles mentioned in the preceding paragraphs as comprehensively as possible. A total of seven distinct criteria were thematically developed. The chosen themes broadly deals with:

- Demand - deducted from an appraisal of housing, population numbers, transport and status of basic services;

- Supply – deducted from an appraisal of access to housing, access to transport and access to basic services; and
- Planning structure – deducted from land-use, land development opportunities, movement and connectivity and the relationships (position) with the CBD.

It is important to keep in mind that the ultimate scoring from one urban core over another, carries no quantitative value other than a relative weight of one versus the other.

**Figure B-32: Prioritisation Criteria**



These prioritisation criteria are unpacked in further detail in Table B-4 below. For each criterion, relevant and measurable sub-criteria are provided, as well as the unit of measurement that will be used in the development of an ultimate score for each urban core. The “Comment” column in Table B-4 provides the source of the data that is measured and and/or an explanation to provide further clarity.

**Table B-4: Selected prioritisation criteria**

People		
Criteria	Unit	Comment
Community size (population) within the Urban Core	number of persons	Reference was made to Census 2011 data, published by Statistics South Africa.
Proportion of community living in poverty within the Urban Core	%	Reference was made to the income poverty line (R636 per month), rounded to the nearest category threshold i.e. R800

Access to Basic Services		
Criteria	Unit	Comment
Proportion of the community living in informal settlements	%	Reference was made to Census 2011 data, published by Statistics South Africa
Proportion of community within no access to piped water within 500m of a community stand	%	Reference was made to Census 2011 data, published by Statistics South Africa.
Proportion of community without municipal refuse removal	%	Reference was made to Census 2011 data, published by Statistics South Africa.
Proportion of community without flushing/ventilated toilets	%	Reference was made to Census 2011 data, published by Statistics South Africa.
Proportion of population who use energy alternatives for cooking i.e. with no access to electricity	%	Reference was made to Census 2011 data, published by Statistics South Africa.
Proportion of population who use energy alternatives for heating i.e. with no access to electricity	%	Reference was made to Census 2011 data, published by Statistics South Africa.
Proportion of population who use energy alternatives for lighting i.e. with no access to electricity	%	Reference was made to Census 2011 data, published by Statistics South Africa.

Movement and Connectivity		
Criteria	Unit	Comment
Number of TRT TOD precincts	number	A Transit Oriented Development (TOD) precinct is defined by a 1km radius around a transit station, as per the MSDP. Note that only the Phase 1 TRT line has been considered for the purposes of the analysis.
TRT Phasing	phase	TRT phasing represents the sequence of implementation within the urban cores.
Number of rail TOD precincts	number	For the purposes of the analysis, only existing rail stations were considered.
Number of intermodal TOD precincts	phase	An intermodal precinct was defined as one where the TOD precincts of the TRT and rail stations overlap.
Average trip length (travel time)	minutes	Reference was made to the Household Travel Survey. It should be noted that there is a disjuncture between the traffic zones and sub places defined as per Census 2011.
Total peak hour trips in	person trips	Reference was made to the Household Travel Survey. This represents the transportation demand attracted to the Urban Core i.e. as a destination (during a typical morning peak hour).
Total peak hour trips out	person trips	Reference was made to the Household Travel Survey. This represents the transportation demand originating within the Urban Core (during a typical morning peak hour).

## Housing

Criteria	Unit	Comment
Housing backlog	residential units	The number of backyard shacks and informal settlement units identified as part of the Sustainable Human Settlements Plan (SHSP).
Expected housing supply	residential units	Number of expected units to be accommodated within receiving areas (future residential expansion areas) and in-situ upgrade areas within the Urban Cores, in line with the SHSP.

## Land Development Opportunities

Criteria	Unit	Comment
Vacant land owned by the City of Tshwane	m <sup>2</sup>	Note this value relates to the area specifically within the Urban Core.
Strategic development land parcels	m <sup>2</sup>	Note this value relates to the area specifically within the Urban Core, as identified in the SHSP.
Total rail TOD catchment area	m <sup>2</sup>	Note this value relates to the area specifically within the Urban Core. It should be noted that this value was determined without cadastral information defining actual land parcels.
Total rail TOD catchment area within compact city buffer	m <sup>2</sup>	This value relates to the Transit Oriented Development area around rail precincts specifically within those portions of the Urban Core that fall within the radius of the 25km compact city buffer. It should be noted that this value was determined without cadastral information defining actual land parcels.
Proportion of rail TOD catchment area within compact city buffer	%	A proportion of the total rail catchment area.
Total TRT TOD catchment area within compact city buffer	m <sup>2</sup>	This value relates to the Transit Oriented Development area around TRT precincts specifically within those portions of the Urban Core that fall within the radius of the 25km compact city buffer. It should be noted that no TRT TOD precincts within Phase 1 fall outside the compact city buffer. It should be noted that this value was determined without cadastral information defining actual land parcels.
Total area of residential developable land within TOD catchment areas	m <sup>2</sup>	This area reflects receiving areas (residential expansion areas) and in-situ upgrade areas (identified within the SHSP) that specifically fall within the TOD precincts of the Urban Core and assumes that all land is available and viable for development.

## Relationship with the CBD

Criteria	Unit	Comment
Total area of urban core	m <sup>2</sup>	This area was calculated without cadastral information and therefore reflects the entirety of the area covered by the defined Urban Core boundary.
Area of urban core that falls within the compact city buffer	m <sup>2</sup>	It should be noted that this value was determined without cadastral information defining actual land parcels.
Proportion of total Urban Core area that falls within the compact city buffer	%	A proportion of the total Urban Core area i.e. measured without cadastral information.
Distance to CBD	km	This reflects the straight-line distance to the CBD to give an indication of an Urban Cores proximity to the Capital Core.

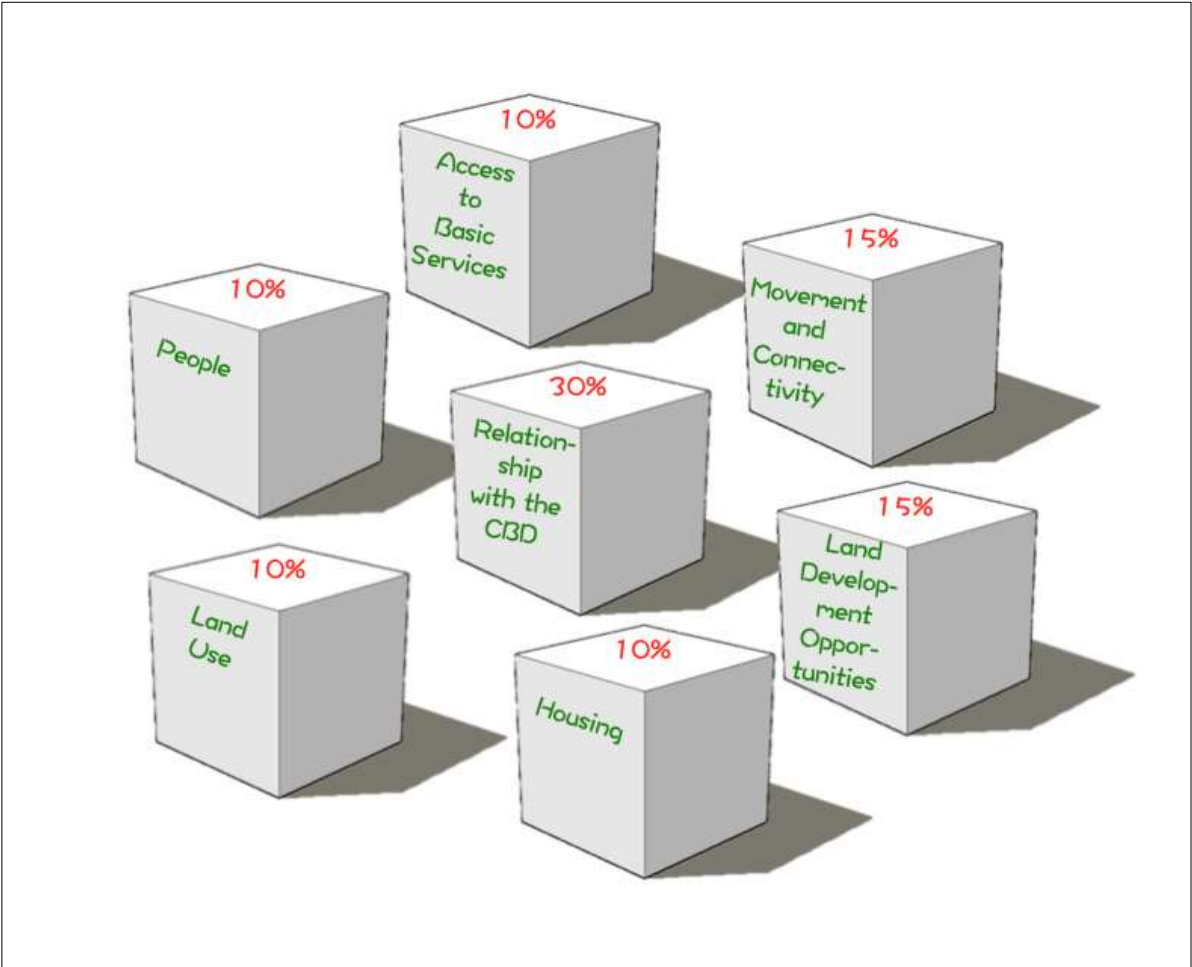
### ***B.2.2.3 Criteria Weighting***

The mathematics of the multi-criteria analysis (MCA) can best be understood by thinking of the model as a statistical tree where multiplication of weights and percentages takes place from right to left in the tree structure (refer to Figure B-31). The score of a particular urban core is determined in part, by the percentage value placed on each branch of the tree representing the weight carried by each branch. Two separate criteria on two different branches will have different effects on the ultimate score as a result of the difference in weight of each branch.

The MCA relies heavily on the weightings assigned to the respective criteria, if the output of the MCA is not desirable it typically indicates that the weightings of the criteria are not done effectively to promote certain development directives above others. For this reason, the MCA was seeded with branch weightings that were determined from an interpretation of strategic guideline documents of the city, augmented by inputs from the key stakeholders in the city.

Each criterion was assigned a weighting indicative of its significance within the context of the specified prioritisation principles. The weighting of the criterion is shown in Figure B-33 and presented in Table B-5. For each of the main criteria, the relative weightings of sub-criteria were also determined (Table B-5). Note that owing to rounding, the summation of the weights shown in Table B-5 may not always total to the respective total weights.

Figure B-33: Relative weighting of main criteria





**Table B-5: Weighting of the Prioritisation Criteria**

People			
Weighting	Criteria	Criteria Weighting	Total Weighting
10%	Community size (population) within the Nodes	60,0%	6,0%
	Proportion of community living in poverty within the Nodes	40,0%	4,0%

Access to Basic Services			
Weighting	Criteria	Criteria Weighting	Total Weighting
10%	Proportion of the community living in informal settlements	14,3%	1,4%
	Proportion of community within no access to piped water within 500m of a community stand	14,3%	1,4%
	Proportion of community without municipal refuse removal	14,3%	1,4%
	Proportion of community without flushing/ventilated toilets	14,3%	1,4%
	Proportion of population who use energy alternatives for cooking i.e. with no access to electricity	14,3%	1,4%
	Proportion of population who use energy alternatives for heating i.e. with no access to electricity	14,3%	1,4%
	Proportion of population who use energy alternatives for lighting i.e. with no access to electricity	14,3%	1,4%

Housing			
Weighting	Criteria	Criteria Weighting	Total Weighting
10%	Housing backlog	70,0%	7,0%
	Expected housing supply	30,0%	3,0%

Land Development Opportunities			
Weighting	Criteria	Criteria Weighting	Total Weighting
10%	Vacant land owned by the City of Tshwane	40,0%	4,0%
	Strategic development land parcels	60,0%	6,0%
15%	Total rail TOD catchment area	20,0%	3,0%
	Total rail TOD catchment area within compact city buffer	-	-
	Proportion of rail TOD catchment area within compact city buffer	30,0%	4,5%
	Total TRT TOD catchment area within compact city buffer	30,0%	4,5%
	Total area of residential developable land within TOD catchment areas	20,0%	3,0%

Relationship with the CBD			
Weighting	Criteria	Criteria Weighting	Total Weighting
30%	Total area of nodes	-	-

Relationship with the CBD			
Weighting	Criteria	Criteria Weighting	Total Weighting
	Area of nodes that falls within the compact city buffer	-	-
	Proportion of total Node area that falls within the compact city buffer	70,0%	21,0%
	Distance to CBD	30,0%	9,0%

#### ***B.2.2.4 Rating Scale***

A proportional rating scale was used to score the Nodes. In so doing, the total value obtained for a specific criterion was determined by summing the total achieved for each Node. Subsequently, the proportion each Node contributes to that total was calculated and assigned as the score to which the respective criterion weighting was applied. This allows both the ranking and relative/proportional importance of a specific Node to be determined. As part of the rating and scoring process, the following should be noted:

- The community size within a Nodal area reflects the potential number of beneficiaries of investment within that area. The larger the community size, the more favourably an area will be considered for investment.
- The provision of basic services has been identified as a strategic objective of the City of Tshwane and a significant focus of infrastructure investment. Current access to basic services represents the need for basic services. The greater the need for basic services within a Node, the higher the node will score within the prioritisation framework. Similarly, the greater the level of poverty within a Node, the greater the need for investment and the higher the node will score.
- In line with the principles of Transit Oriented Development (TOD), transit precincts (both rail and TRT) within a Node provide opportunities for focused and strategic investment. The more transit precincts within a Node, the higher it is likely to be ranked. Where transit stations are still to be developed i.e. in the case of the TRT, TOD investment is best aligned with transit implementation and thus Nodes in which development is to occur soonest will rate more highly.
- With reference to existing travel characteristics, the number of peak hour trips to and from a Node reflect the travel demand of that node. The higher the demand for travel, the greater the impact of investment (i.e. improvement of public transport services, reductions in the need to travel etc.) and the higher the Node will score. Travel time, a function of travel distance, also provides an indication of quality of services. The further removed commuters are from places of employment, the greater the need for improved transportation services or increased local employment opportunities. Nodes characterized with higher travel times are since apportioned a larger total of the score.
- As in the case of basic services, residential housing backlogs provide an indication of the investment required within a particular area. The larger the housing backlog within a Node, the higher it will score. Similarly, where greater opportunity exists to provide formal residential housing, the higher the score.
- Investment within the Nodes depends on the availability of land, particularly land that is located within strategic locations i.e. within TOD precincts, within the compact city buffer and in close

proximity to the CBD. The larger the availability of land within such precincts, the higher the priority to capitalize investment.

### **B.3 Project Preparation**

#### ***B.3.1 Defining Project Preparation***

Project Preparation consists of all the work necessary to ensure that a proposed project is feasible and appropriate and that it can be successfully implemented. Project preparation work typically involves social, technical and financial tasks or activities, including but not limited to the following:

- Identification of funding sources
- Needs assessments
- Community and stakeholder consultations
- Socio-economic studies
- Development of project concepts
- Assessments of site suitability (e.g. topography, geotechnical and environmental conditions, bulk services)
- Land availability negotiations and agreements,
- Participative planning,
- Design activities such as concept and preliminary design
- Estimation for capital and operational costs
- Applications to funders or implementation partners.

Project preparation, if undertaken in a structured and systematic fashion holds a number of strategic advantages for an organization:

- Project risks are managed and controlled
- Scarce implementation resources (e.g. capital funding) are optimally utilized and are only allocated to viable projects.
- Projects are well conceptualized and planned
- Development is appropriately tailored to local needs and is integrated in nature
- Projects are supported by the key stakeholders (including the community, municipality, funders and implementation partners)
- Government and other funders can predict and therefore manage their cash flows by enhancing the predictability of project outcomes and timeframes for implementation

#### ***B.3.2 Standard for Infrastructure Procurement and Delivery Management (SIPDM)***

Project preparation is a sub-component or sub-activity of the full infrastructure delivery and management life-cycle. National Treasury has defined a framework for the life-cycle of infrastructure delivery through the publication of the Standard for Infrastructure Procurement and Delivery Management.

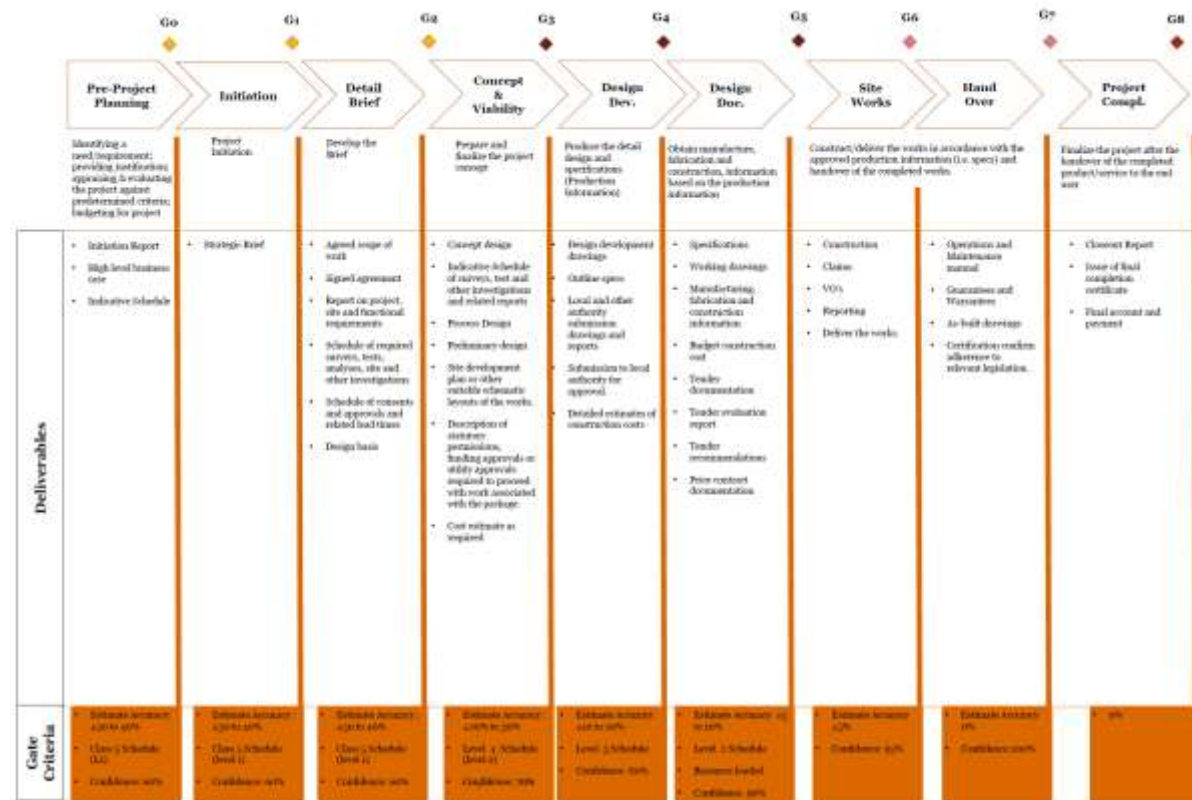
This framework sets out a standardised project life-cycle for infrastructure delivery and is define into four primary phases, each with corresponding sub-phases:

- Planning

- Pre-Project Planning
- Initiation
- Detailed Brief
- Design
  - Concept and Viability
  - Design Development
  - Design Documents
- Works
  - Site Works
  - Hand-over
- Close-out
  - Project Completion

Each of these project life cycle phases and sub-phases have a specific functional definition, deliverables, level of accuracy or confidence and stage gate criteria associated with them.

**Figure B-34: SIPDM Framework Project Life Cycle**



### B.3.3 Project Preparation within the City of Tshwane

The City of Tshwane utilises a project preparation, planning and prioritisation information system (CAPS) (refer to Figure B-35) to solicit medium-to-long term development plans and implementation strategies to give effect to the city's Vision, Metropolitan-, Regional- and Local Spatial Development Frameworks and Precinct Plans (refer to Figure B-36). In so doing, CAPS evolved into the centralised

project database which houses all identified projects and enabling factors required to facilitate and support development (i.e. required bulk infrastructure, transport infrastructure, social amenities etc.).

Figure B-35: City of Tshwane Capital Planning Information System (CAPS)

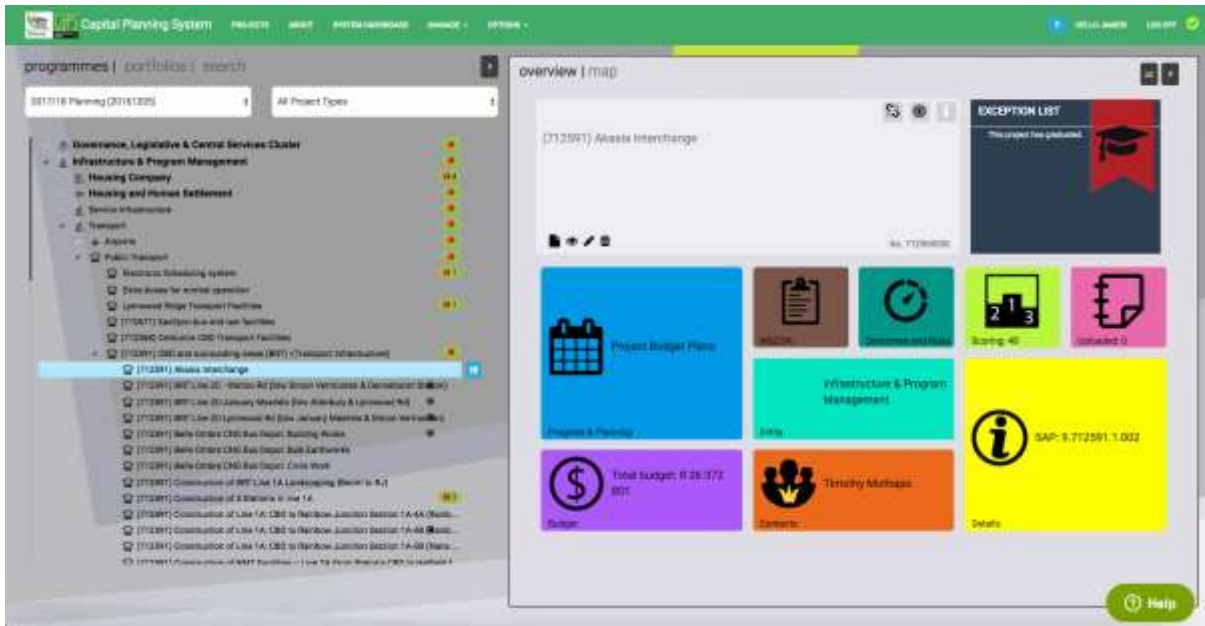
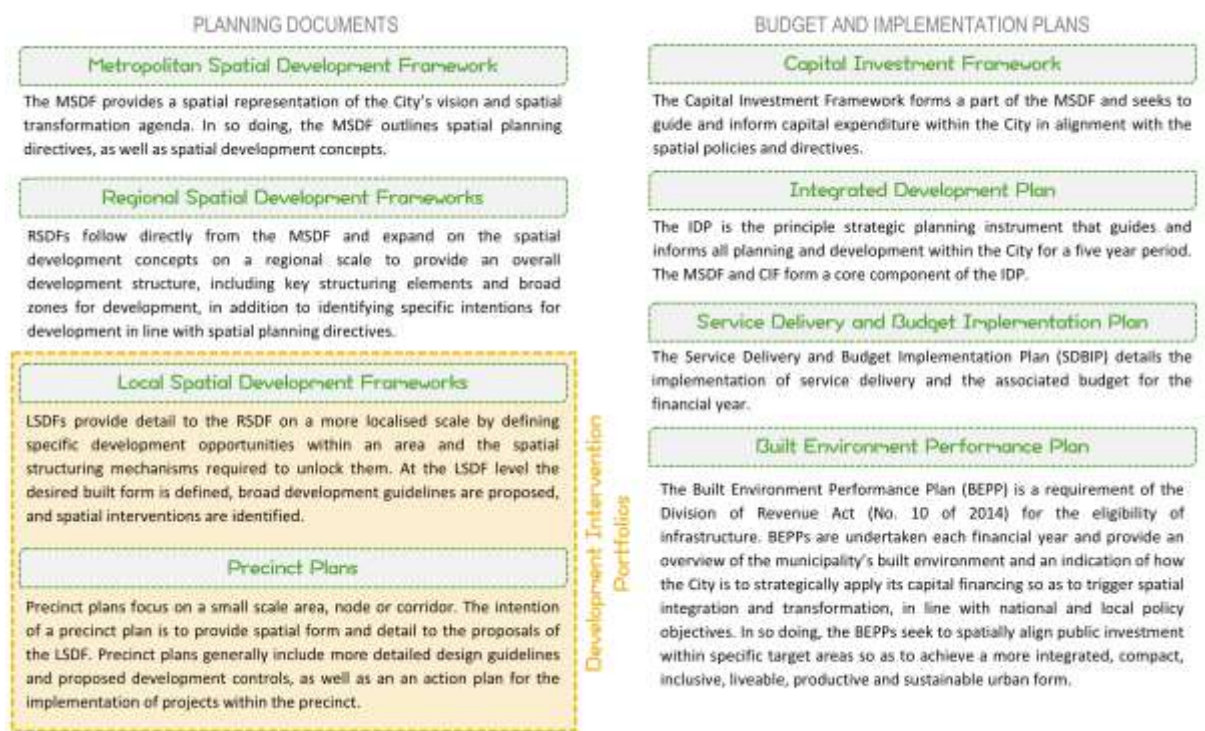


Figure B-36: City of Tshwane Package of Plans

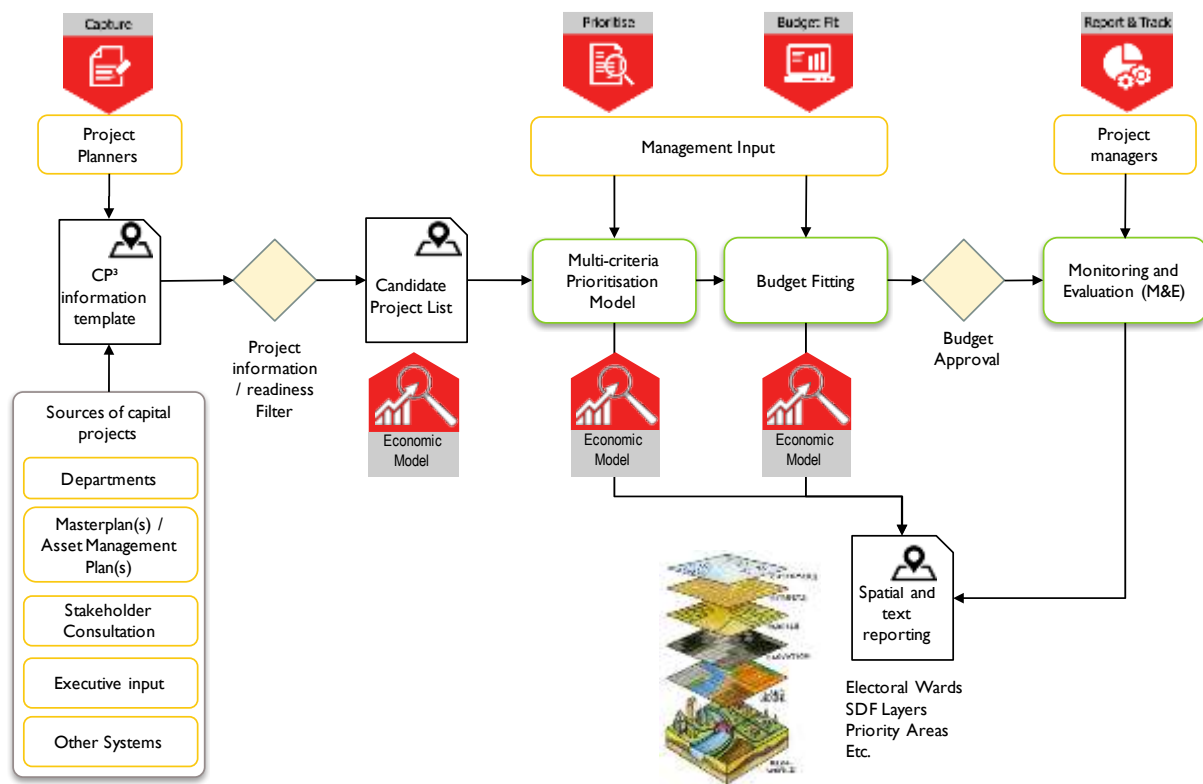


The sources of capital projects are varied, and the business processes which supports the CAPS information system accommodates all potential sources of capital needs, namely (refer to Figure B-37):

- Departmental Asset Management Plans and Masterplans
- Demand modelling and user profiling (other systems)
- IDP stakeholder consultation
- Executive inputs

The project preparation process of the City of Tshwane is enhanced significantly by capturing all capital needs on the CAPS information system, because the minimum required information (or project fiche) for each of the project life-cycle stages of a project can be predefined and standardized across all departments within the city in accordance with the National Treasury Standard for Infrastructure Procurement and Delivery Management as well as the analysis and reporting requirements of the Municipal Financial Management Act Municipal Standard Chart of Accounts (mSCOA).

**Figure B-37: High Level Project Life-cycle Process Flow within CAPS**



### **B.3.4 CAPS Minimum Project Information Requirements**

The following minimum project information requirements are specified for capital needs being entered on the CAPS information system in order to meet the requirements of the National Treasury Standard for Infrastructure Procurement and Delivery Management (SIPDM) as well as the Municipal Financial Management Act Municipal Standard Chart of Accounts (mSCOA):

- Project ID (unique system generated project number)
- Project name
- Project description / output narrative
- External reference numbers (i.e. Core financial system, project management systems, GIS reference keys etc.)



- Organisational macro-structure
  - Unit / cluster
  - Department
- Project start date
- Project end date
- Project location information
  - Works locations
  - Affected or beneficiary area
- Project budget
  - Budget line item financial year
  - Budget line item SIPDM Phase
  - Budget line item SIPDM Sub-phase
  - Budget line item mSCOA Fund segment funding source and GUID
  - Budget line item amount
- Project contact details
- Project Scope-builder (mSCOA segments)
  - mSCOA Function Segment (responsible line function)
    - Function
    - Core or Non-core classification
    - Sub-function
  - mSCOA Project segment
    - Expenditure type and project class
    - Actions and sub actions
    - Project type and details
  - mSCOA Item Segment
    - Asset classification
  - Project Extent
  - Location description
- Project details
  - Project readiness:
    - Feasibility study
    - Environmental Impact Assessment
    - Water use license (WULA)
    - Way-leaves
    - Township establishment
    - Rezoning
    - Site development plan
    - Land acquisition
    - Land Ownership status
    - Materials availability
    - Supply chain / procurement
    - Project Readiness Comment
  - Project Impact
    - What is the impact of not implementing this project?
  - Financial Impact
    - Increase of rates base?

- What is the source of accuracy of the project budget estimate?
- What is the life-span or replacement period of the asset?
- What is the estimated annual operating cost of the project once implemented?
- Expenditure classification
  - Capital or Operational expenditure
- Legal obligations
  - Is the City legally obliged to undertake the project? (if yes, upload proof)
- Sustainability Impact
  - Does this project directly lead to a reduction of the city's carbon footprint?
  - Does this project contribute directly to energy efficiency?
  - Does this project contribute directly to water conservation?
  - Does this project contribute directly to waste minimization?
- Strategic outcomes and key performance areas
- Departmental priority rating
- Risk identification matrix and mitigations
- Project cash-flow planning
- Project milestone planning

### ***B.3.5 Evidence-based Project Preparation***

The National Treasury SIPDM propagates an evidence based portfolio and project management methodology whereby specific evidence artefacts should be associated with the completion of a particular project phase and sub-phase. The City of Tshwane capital planning information system (CAPS) is aligned with the SIPDM methodology and requires the users of the system to supply evidence of project preparation.

Project preparation evidence associated with a particular project phase or sub-phase can be uploaded to the CAPS document management system. A typical portfolio of evidence should consist of the following supportive documentation:

- Technical Feasibility
  - Pre-feasibility study
  - Feasibility study
- Financial Feasibility
  - Cost estimate, bill of quantities etc.
  - Economic impact studies
- Implementation Readiness
  - Environmental Impact Assessment – Record of Decision (ROD) (if applicable)
  - Water Use Licence approvals (if applicable)
  - Way-leave approvals (if applicable)
  - Township establishment approvals (if applicable)
  - Rezoning approvals (if applicable)
  - Site development plan approvals (if applicable)
  - Land ownership - Title deed
  - Materials availability - purchase orders



- Supply chain / procurement – letter of appointment, contracts, service level agreements etc.

#### B.4 Institutional Arrangements and Operating Budget

The BEPP annual planning cycle is prescribed by National Treasury as part of the BEPP Guidance Note 2016/17-2018/19 and is shown below in Table B-6.

**Table B-6: BEPP Annual Planning Cycle**

KEY DATES	ITEM	CONTENT
18 -30 Aug 2016	Education 10x10; Economic Infrastructure function group; Human Settlements Function Group; Health 10x10; (Industrial development and trade function group).	Metropolitan municipalities perspective in 2017/18 budget process
14 Sep 2016	Urban DG's Forum	Metropolitan municipalities perspective in 2017/18 budget process
24 Oct 2016	Process Plan for formulation of BEPP 2017/18 MTREF	Focus on process and timelines for content of BEPP 2017/18 MTREF
25 Jan – 26 Feb 2017	Mid-Year (2016/17) Budget Review; Mid-Year (2016/17) Built Environment Performance; Built Environment Plan for 2017/18	To include review of built environment performance (2016/17 BEPP) and intent of BEPP 2017/18
30-31 Jan 2017	City of Tshwane MM	
31 Mar 2017	Draft BEPP submission	Document submission
April 2017	Budget Benchmarking Meetings	To include dedicated day for Draft BEPP and Draft IDP review, and assessment of alignment with draft Budget for MTREF
31 May 2017	Final BEPP submission (council approval)	Document submission
28 Jun 2017	Annual BEPP Evaluation Workshop	Workshop attendance (all metropolitan municipalities)
31 Jul 2017	2017/18 BEPP Evaluation Report finalised	Document released
31 Aug 2017	Final 2018/19 BEPP Guidelines released	Document released

The annual planning and budgeting processes within the City of Tshwane need to be responsive to these timelines. Within the organizational structure of Tshwane, a department will also be identified that will take ownership of the BEPP process. This function will have to ensure full integration with the IDP office, Finance as well as Metropolitan Spatial Planning and City Strategies.

## **C Intergovernmental Project Pipeline**

### **C.1 Intergovernmental Project Pipeline**

#### ***C.1.1 Introduction***

As part of the Built Environment Performance Plan, the City of Tshwane is required to show the intergovernmental coordination and planning between Provincial Government Expenditure and Municipal Government Expenditure. Furthermore, coordination between the City and other public entities should be shown. In this section alignment between PRASA and Public Works will be shown.

Much value could be taken from such an intergovernmental understanding of projects, highlighting - if not anything else - the intuitive and obvious need for intergovernmental alignment of Capital Expenditure.

This chapter aims to provide a discussion around intergovernmental capital project alignment. Alignment in this instance will be evaluated from a spatial and financial point of view. Projects of Gauteng Provincial Government, PRASA and Public Works and the City of Tshwane Metropolitan Municipality that will be evaluated, based on their MTREF 2017/18 approval status, will be compared in terms of their project location with regards to the City of Tshwane Urban Network Structure, the BEPP priority intervention areas, in terms of the relative location to City of Tshwane Approved MTREF projects, as well as in terms of the relevant project's type of infrastructure expenditure – all depending on the availability of the aforementioned data.

#### ***C.1.2 Process***

In order to conduct a discussion on intergovernmental alignment, a simple linear systematic process has been followed comprising of three components namely data gathering, data preparation and data analysis. During the latter several analytical deductions and conclusions will be made.

##### ***C.1.2.1 Data Gathering:***

Gauteng Province has provided the City of Tshwane with all of its approved MTREF project details. The information includes the following:

- Department
- Project Name
- Type of Infrastructure
- Sum of MTREF 2017/18
- Sum of MTREF 2018/19
- Sum of MTREF 2019/20

Please refer to Annexure 2 for a detailed record of projects and to the table below for a summarised list of project details per department:

**Table C-1: Summarised project details per Gauteng Department**

	Number of Projects	2017/2018 Approved Budget	2018/2019 Approved Budget	2019/2020 Approved Budget
<b>Gauteng Province</b>	<b>223</b>	<b>R2 716 408 969</b>	<b>R1 488 671 380</b>	<b>R1 534 470 210</b>
Agriculture and Rural Development	7	R13 615 000	R39 650 000	R16 050 000
Education	63	R1 130 923 969	R326 911 380	R375 323 210
Health	68	R415 199 000	R33 200 000	R23 100 000
Human Settlements	77	R1 051 547 000	R1 083 310 000	R1 110 197 000
Infrastructure Development	1	R1 139 000	R-	R-
Social Development	3	R34 000 000	R-	R-
Sports, Arts, Culture and Recreation	4	R69 985 000	R5 600 000	R9 800 000

PRASA has major potential to unlock alternative modes of transport, alternative to private vehicle transport. To unlock this potential, the City of Tshwane need to align intimately with PRASA as the success of great cities depends on the integration of activity nodes by means of various transport modes. PRASA has provided the following information regarding MTREF projects that are based in Tshwane:

**Table C-2: Summarised project details as provided by PRASA**

	Number of Projects	2017/2018	2018/2019	2019/2020
<b>PRASA</b>	<b>34</b>	<b>R1 766 111 830</b>	<b>R-</b>	<b>R-</b>
Greenview - Pienaarspoort Railway Extension		R150 000 000	R155 000 000	R192 000 000
Soshanguve Station Upgrade		R8 000 000	R8 000 000	R5 200 000
Wonderboom Station Upgrade		R8 000 000	R 8 000 000.00	R5 200 000
Wolmerton Station Upgrade		R8 000 000	R 8 000 000.00	R5 000 000
Wolmerton Depot Modernisation		R165 697 000	R-	R-
Wolmerton Depot Fencing		R7 500 000	R-	R-
Loftus (Station Modernisation)		R2 015 830	R-	R-
Pretoria (Station Modernisation)		R15 000 000	R8 000 000.00	R-
Wolmerton (Station Modernisation)		R8 000 000.00	R8 000 000.00	R-

	Number of Projects	2017/2018	2018/2019	2019/2020
<b>PRASA</b>	<b>34</b>	<b>R1 766 111 830</b>	<b>R-</b>	<b>R-</b>
Wonderboom (Station Modernisation)		R8 000 000.00	R8 000 000.00	R-
Belle Ombre (Station Modernisation)		R8 000 000.00	R10 000 000	R-
Kopanong (Station Modernisation)		R15 000 000	R15 000 000	R-
Soshanguve (Station Modernisation)		R8 000 000	R8 000 000	R-
Phase 1: Barracks (Platform Rectification)		R25 000 000	R10 000 000	R-
Denneboom, Mamelodi & Hercules (Platform Rectification)		R3 000 000	R-	
Centurion (Platform Rectification)		R25 010 000	R3 000 000	R-
Mears St to N4 Bridge (Platform Rectification)		R4 000 000.00	R1 000 000	R-
Mitchell St to Saulsville (Platform Rectification)		R8 000 000	R5 000 000	R-
Wolmerton (Depot Modernisation and Fencing)		R7 500 000	R-	R-
(Depot Modernisation and Fencing)		R65 697 000	R100 000 000	R-
Greenview to Pienaarspoort (Railway Extension)		R50 000 000	R155 000 000	R-
Corridor Fencing		R654 192 000	R-	R-
Mabopane (Linkages to Projects)		R58 000 000	R5 000 000	R-
Akasiaboom (Linkages to Projects)		R153 000 000	R45 000 000	R-
Pretoria (Linkages to Projects)		R45 000 000	R17 720 997	R-
Irene (Linkages to Projects)		R44 500 000	R10 000 000	R-
Naboomspruit (Linkages to Projects)		R209 500 000	R39 000 000	R-
Silverton (Linkages to Projects)		R20 000 000	R-	R-
Akasiaboom (Linkages to Projects)		R4 000 000	R-	R-
Silverton (Linkages to Projects)		R-	R-	R-
Irene (Linkages to Projects)		R-	R-	R-
Gezina (Linkages to Projects)		R4 000 000	R-	R-
Hercules Station & Staging Yard (Linkages to Projects)		R1 000 000	R-	R-
Denneboom (Linkages to Projects)		R1 500 000	R-	R-

The National Department of Public Works has a significant stake in the City of Tshwane, especially the Inner City. As part of the Tshwane Inner-City Regeneration Strategy the following projects has been identified by the National Department of Public Works together with the City of Tshwane as key projects to unlock the development potential within the Capital City:

**Table C-3: Summarised project details as provided by NDPW**

	Number of Projects	2017/18 Approved Budget	2018/19 Approved Budget	2019/20 Approved Budget
<b>NDPW</b>	<b>5</b>	<b>R551 100 000</b>	<b>R18 654 000 000</b>	<b>R-</b>
Southern Gateway Precinct	Various Sub Projects	R350 000 000	R8 280 000 000	R-
Government Boulevard	Various Sub Projects	R1 100 000		R-
Northern Gateway Precinct	Various Sub Projects	R100 000 000	R8 510 000 000	R-
Capital Hill Precinct	Various Sub Projects	R50 000 000	R264 000 000	R-
Civic Precinct	Various Sub Projects	R50 000 000	R1 600 000 000	R-

The City of Tshwane has a detailed list of MTREF projects. This budget of approved projects could be summarized per department as follow:

**Table C-4: Summarised project details per City of Tshwane Department**

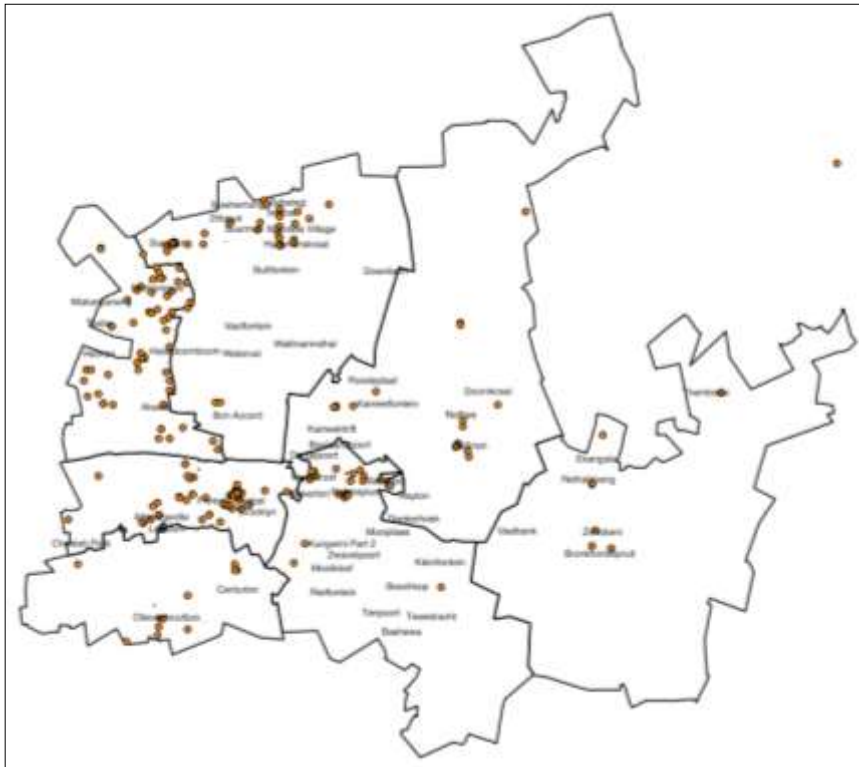
	Number of Projects	2017/2018 Approved Budget	2018/2019 Approved Budget	2019/2020 Approved Budget
<b>City of Tshwane</b>	<b>340</b>	<b>R3 861 284 040</b>	<b>R3 822 935 510</b>	<b>R4 413 280 710</b>
Airports	20	R34 000 000	R15 500 000	R35 000 000
Audit and Risk	2	R13 000 000	R13 000 000	R13 000 000
Community and Social Development Services	5	R34 000 000	R-	R-
Customer Relations Management	4	R10 000 000	R3 000 000	R2 000 000
Economic Development and Spatial Planning	7	R96 064 650	R108 173 700	R109 783 400
Electricity	73	R488 312 146	R630 154 020	R580 275 310
Emergency Services	3	R10 000 000	R10 000 000	R35 000 000

	Number of Projects	2017/2018 Approved Budget	2018/2019 Approved Budget	2019/2020 Approved Budget
Environment and Agricultural Management	10	R32 500 000	R51 000 000	R62 500 000
Financial Services	9	R95 000 000	R55 000 000	R45 000 000
Group Property Management	1	R5 000 000	R5 000 000	R5 000 000
Health	8	R15 200 000	R32 000 000	R39 936 000
Housing and Human Settlement	60	R874 422 432	R1 025 508 909	R920 000 000
Information and Communication Technology	7	R93 500 000	R103 000 000	R118 000 000
Metro Police Services	1	R13 000 000	R10 000 000	R10 000 000
Office of the City Manager	4	R406 000 000	R335 000 000	R825 000 000
Public Transport	23	R679 189 840	R396 285 230	R426 086 000
Regional Operations and Coordination	1	R5 000 000	R3 000 000	R5 000 000
Roads and Stormwater	60	R365 283 724	R450 198 225	R506 700 000
Sports and Recreational Services	6	R57 507 000	R67 000 000	R63 500 000
Tshwane Leadership and Management Academy	1	R7 000 000	R7 000 000	R7 000 000
Water and Sanitation	35	R527 304 248	R503 115 426	R604 500 000

### C.1.3 Data Preparation

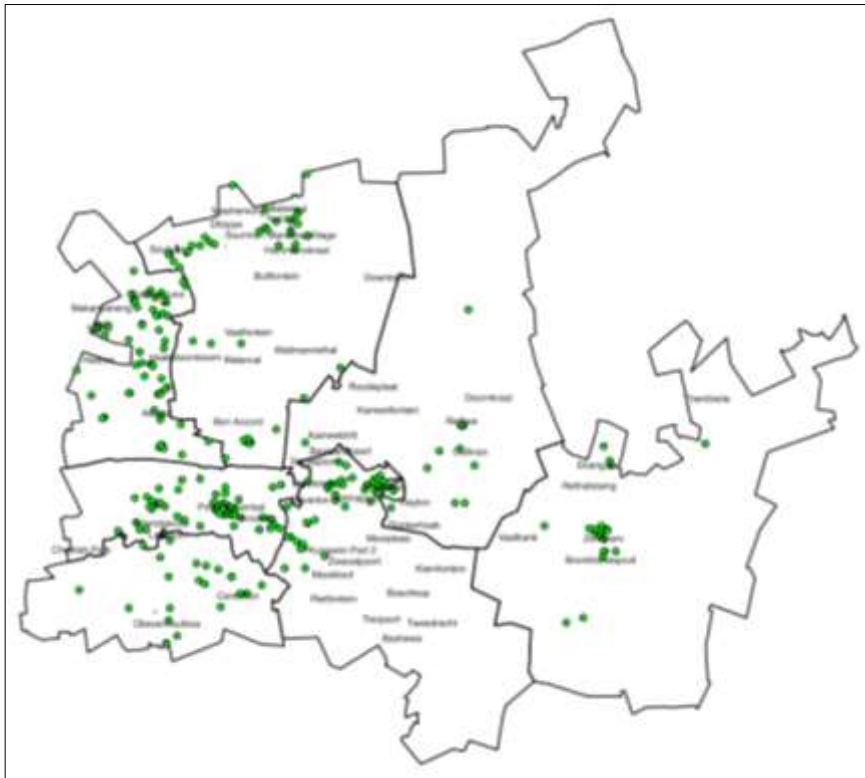
Gauteng Province has provided the City of Tshwane with its approved MTREF projects. The City of Tshwane estimated project locations of the Gauteng provincial projects, based on the provided project list, that falls within the demarcated area of the City of Tshwane. The following figure shows the location of all approved MTREF Projects undertaken by the Gauteng Province:

**Figure C-1: Gauteng Approved 2017/18 MTREF Project Locations**



To compare the Gauteng provincial projects with the City of Tshwane MTREF projects, the City compiled project locations of all MTREF Projects. Please refer to the figure below:

**Figure C-2: City of Tshwane Approved 2017/18 MTREF Project Locations**



#### ***C.1.4 Provincial and Municipal Project Overlap Analysis***

This section deals with the spatial analysis between Provincial and Municipal projects.

##### ***C.1.4.1 Gauteng Projects spatial distribution in terms of City of Tshwane Projects***

To identify intergovernmental alignment on a spatial level, a 1km radius buffer has been drawn around all Gauteng Provincial projects and has been used as a spatial filter to identify projects within 1km of approved City of Tshwane projects. The following table shows a summary of number of intersects per City of Tshwane department:

**Table C-5: Number of City of Tshwane projects which are within 1km of Gauteng projects**

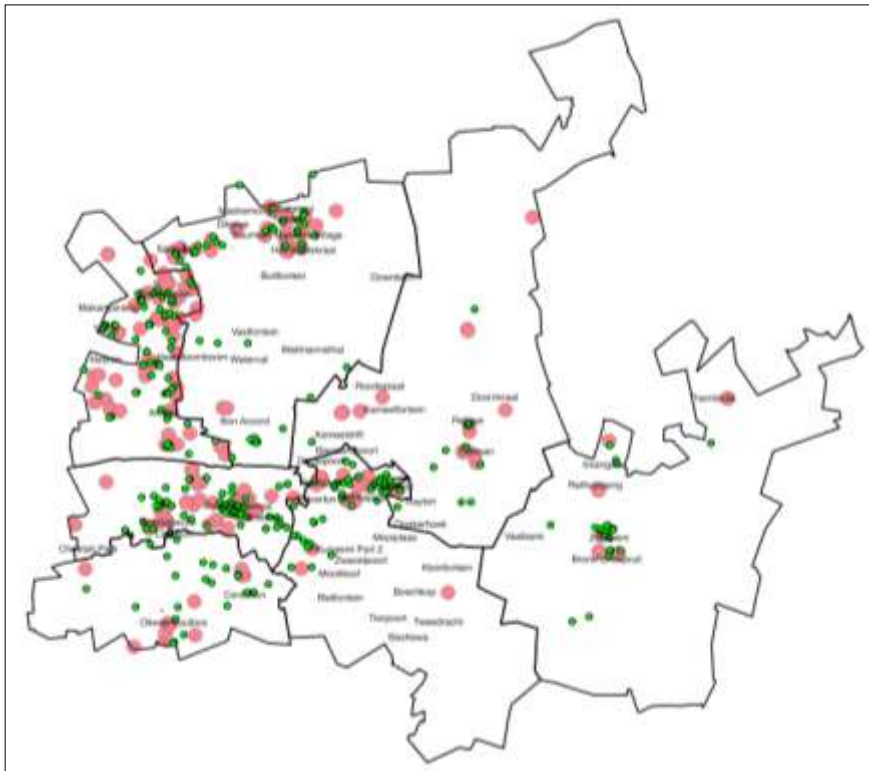
City of Tshwane Department	Number of City of Tshwane projects within 1km of Gauteng Projects
Airports	1
Audit and Risk	3
Community and Social Development Services	5
Customer Relations Management	3
Economic Development and Spatial Planning	20
Electricity	207
Emergency Services	15
Environment and Agricultural Management	67
Financial Services	12
Group Property Management	4
Health	13



City of Tshwane Department	Number of City of Tshwane projects within 1km of Gauteng Projects
Housing and Human Settlement	19
Information and Communication Technology	7
Metro Police Services	2
Office of the City Manager	5
Public Transport	45
Regional Operations and Coordination	1
Roads and Stormwater	102
Sports and Recreational Services	16
Tshwane Leadership and Management Academy	4
Water and Sanitation	91

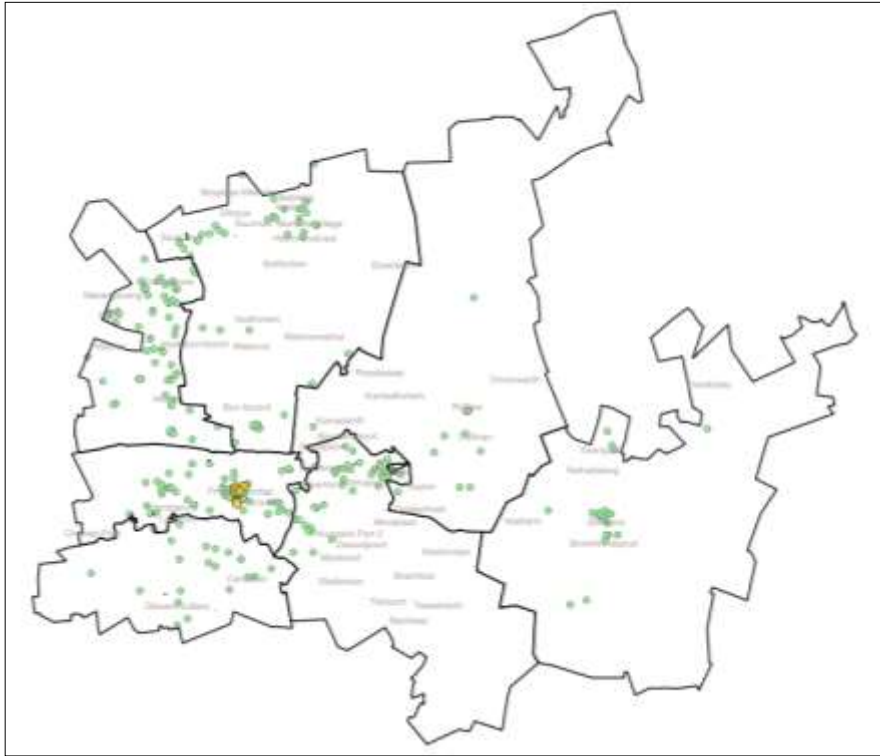
The table above shows the number of projects funded by the City of Tshwane that fall within a 1km buffer of any provincial project. Considering Figure C-3, a clear pattern of spatial alignment exists between projects funded by the City of Tshwane and projects funded by Gauteng province. The following map shows the spatial distribution of City of Tshwane projects versus the 1km buffer area around Gauteng Provincial projects.

**Figure C-3: City of Tshwane projects which are within 1km of Gauteng projects**



#### ***C.1.4.2 Public Works Projects Spatial Distribution in terms of City of Tshwane Projects***

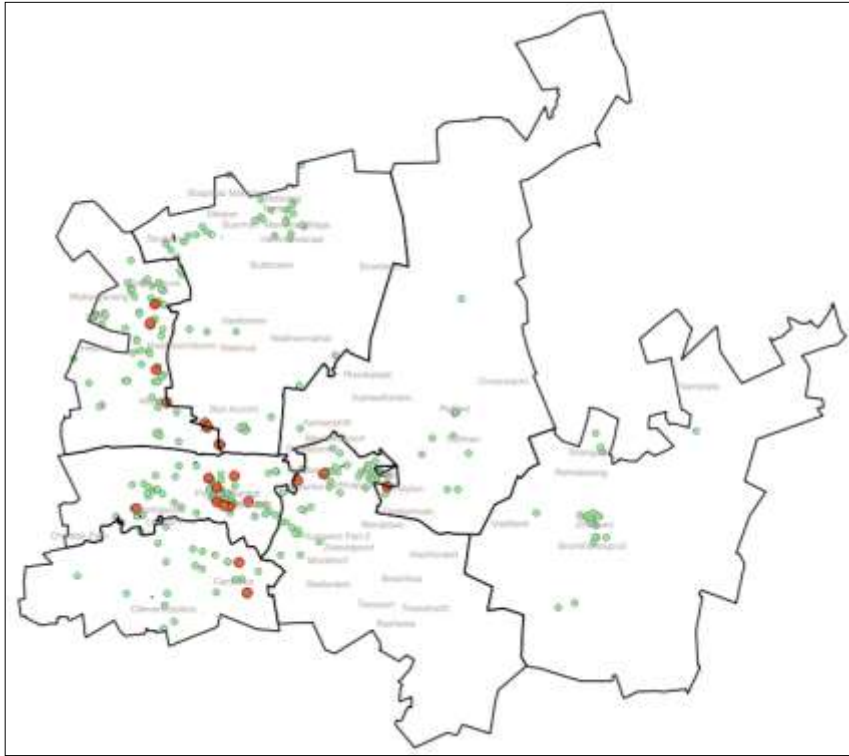
**Figure C-4: Public Works Project Location with Regards to City of Tshwane Projects**



The figure above shows the intense concentration of Public Works projects in the Inner City of Tshwane. This is an effort by the department of Public Works to cluster National department headquarters in the City Centre of the Capital City of South Africa. Spatially, project investment by NDPW is in line with project investment by the City of Tshwane. The City and NDPW has a healthy relationship in developing the Inner City and so unlocking the economic potential of the City.

#### **C.1.4.3 PRASA Projects Spatial Distribution in terms of City of Tshwane Projects**

**Figure C-5: PRASA project locations with regards to City of Tshwane Project Locations**

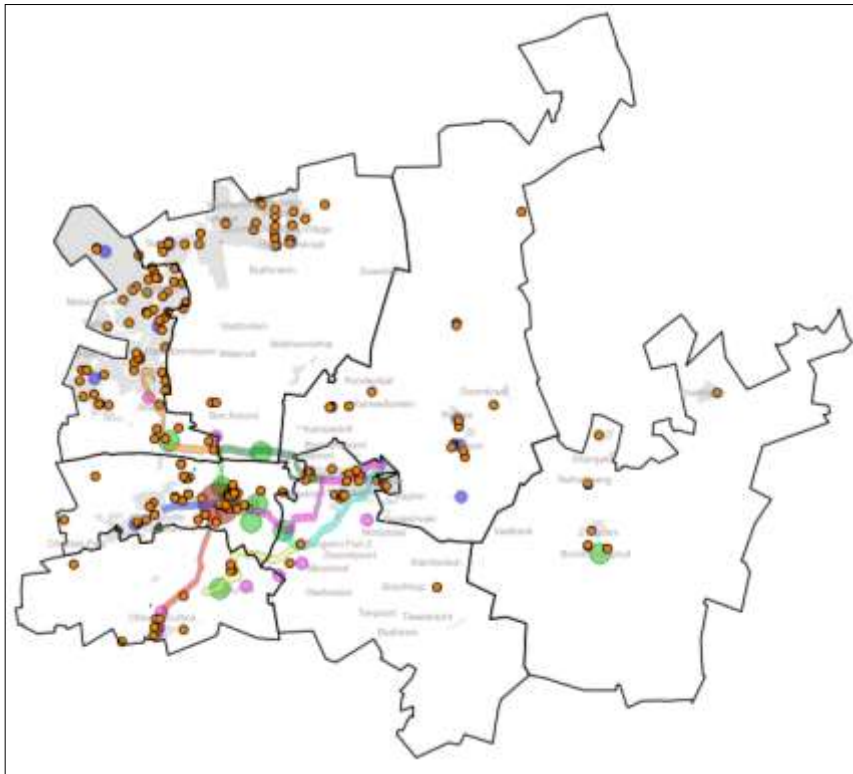


The spatial distribution of PRASA is clearly and obviously focused along PRASA infrastructure. PRASA is investing in existing infrastructure. This shows intent of PRASA to work with the City in such a way that alternative movement options are provided to the northern areas of the City. Project investment of PRASA is spatially aligned with project investment of the City of Tshwane. In terms of phasing on a precinct level, further discussions are required to collaboratively and successfully create livable and economically viable spaces.

#### **C.1.4.4 Spatial Distribution of public entities in terms of the UNS Structure**

##### **C.1.4.4.1 Spatial Distribution of Gauteng Provincial Projects per Department in terms of the UNS Structure**

The City of Tshwane's spatial structuring elements is the guiding elements for capital investment. To develop the ideal City, these structuring elements should be used as strict guidelines for Capital investments by any government institution. The following figure will show the spatial distribution of all Gauteng Provincial projects versus the UNS structure as depicted in the BEPP.

**Figure C-6: Gauteng Projects in relation to the Urban Network Structure**

The image above depicts the alignment between the spatial structuring elements and the various Gauteng project locations. Please note that this analysis should facilitate a margin of spatial erroring as the exact and precise project locations are not known at the time of the development of this document. This does not mean that the major tendencies could be discredited.

The following table shows the number of Gauteng projects, and their relative project budget value which intersects with the UNS of the City:

**Table C-6: Gauteng Province capital spending per department in terms of the UNS**

Gauteng Department versus UNS	Number of Projects	MTREF 2017/18	MTEF 2018/19	MTEF 2019/20
<b>Agriculture and Rural Development</b>	<b>7</b>	<b>R13 615 000</b>	<b>R39 650 000</b>	<b>R16 050 000</b>
No Intersect	7	R13 615 000	R39 650 000	R16 050 000
<b>Education</b>	<b>63</b>	<b>R1 130 923 969</b>	<b>R326 911 380</b>	<b>R375 323 210</b>
Integration Zone	4	R7 846 000	R1 435 340	R500 000
No Intersect	38	R301 551 502	R165 141 040	R245 039 210
Underserved Townships	20	R821 526 467	R156 635 000	R129 784 000
Urban Core	1	R-	R3 700 000	R-
<b>Health</b>	<b>68</b>	<b>R415 199 000</b>	<b>R33 200 000</b>	<b>R23 100 000</b>
Metropolitan Nodes	4	R14 433 000	R2 000 000	R-
No Intersect	50	R273 820 000	R2 000 000	R-
Underserved Townships	13	R90 746 000	R-	R-
Urban Core	1	R36 200 000	R29 200 000	R23 100 000
<b>Human Settlements</b>	<b>77</b>	<b>R1 051 547 000</b>	<b>R1 083 310 000</b>	<b>R1 110 197 000</b>
Integration Zone	4	R102 099 000	R16 088 000	R145 848 000
No Intersect	51	R613 294 000	R815 471 000	R757 385 000

Gauteng Department versus UNS	Number of Projects	MTREF 2017/18	MTEF 2018/19	MTEF 2019/20
Underserved Townships	21	R335 054 000	R243 026 000	R181 335 000
Urban Core	1	R1 100 000	R8 725 000	R25 629 000
Infrastructure Development	1	R1 139 000	R-	R-
No Intersect	1	R1 139 000	R-	R-
<b>Social Development</b>	<b>3</b>	<b>R34 000 000</b>	<b>R-</b>	<b>R-</b>
No Intersect	2	R22 000 000	R-	R-
Underserved Townships	1	R12 000 000	R-	R-
<b>Sports, Arts, Culture and Recreation</b>	<b>4</b>	<b>R69 985 000</b>	<b>R5 600 000</b>	<b>R9 800 000</b>
No Intersect	3	R35 000 000	R5 600 000	R9 800 000
Urban Core	1	R34 985 000	R-	R-
<b>Grand Total</b>	<b>223</b>	<b>R2 716 408 969</b>	<b>R1 488 671 380</b>	<b>R1 534 470 210</b>

It is interesting to note that only 50 Gauteng Province projects are not aligned with the City's UNS Structure. The table below show a detailed capital distribution of Gauteng province in terms of the City's UNS. It is interesting to note that 58% of the Province's Capital Budget do not intersect with any of the UNS Structuring Elements and that the 34% of spending occurs in underserved Township areas. Overall most Gauteng spending occurs outside the UNS. Spending that occurs within the UNS is dominantly located in underserved areas or integration zones. Little spending occurs in the Metropolitan Nodes. Human Settlements spends the most of its capital in the UNS, and spends most of its capital in underserved Townships. This reinforces the idea of segregation. To redress the spatial inequality of the City, more spending is expected in by Human Settlements in Integration Zones.

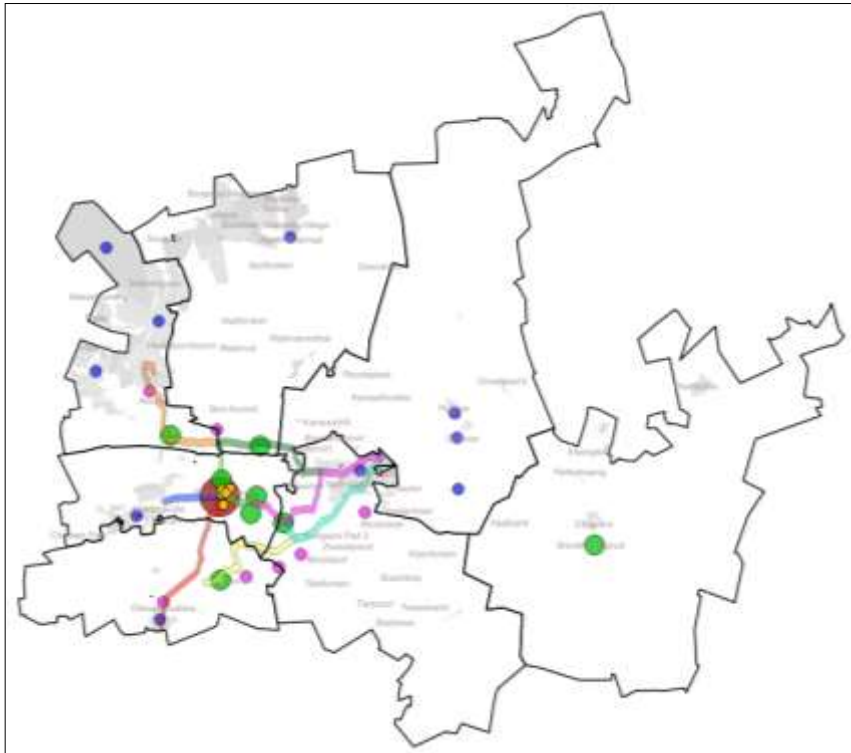
**Table C-7: Gauteng Province Projects intersect with UNS Structuring Elements expressed in budget allocation**

	No Intersect	Underserved Townships	Integration Zone	Urban Core	Metropolitan Nodes	Grand Total	% Per Department
Agriculture and Rural Development	R69 315 000	R-	R-	R-	R-	R69 315 000	1%
Education	R711 731 752	R1 107 945 467	R9 781 340	R3 700 000	R-	R1 833 158 559	32%
Health	R275 820 000	R90 746 000	R-	R88 500 000	R16 433 000	R471 499 000	8%
Human Settlements	R2 186 150 000	R759 415 000	R264 035 000	R35 454 000	R-	R3 245 054 000	57%
Infrastructure Development	R1 139 000	R-	R-	R-	R-	R1 139 000	0%
Social Development	R22 000 000	R12 000 000	R-	R-	R-	R34 000 000	1%
Sports, Arts, Culture and Recreation	R50 400 000	R-	R-	R34 985 000	R-	R85 385 000	1%
<b>Total Per UNS Zone</b>	<b>R3 316 555 752</b>	<b>R1 970 106 467</b>	<b>R273 816 340</b>	<b>R162 639 000</b>	<b>R16 433 000</b>	<b>R5 739 550 559</b>	<b>100 %</b>
<b>% Per UNS Zone</b>	<b>58%</b>	<b>34%</b>	<b>5%</b>	<b>3%</b>	<b>0%</b>	<b>100%</b>	

#### *C.1.4.4.2 Spatial Distribution of Public Works projects in terms of the UNS Structure*

The City of Tshwane's spatial structuring elements is the guiding elements for capital investment. In order to develop the ideal City, these structuring elements should be used as strict guidelines for Capital investments by any government institution. The following figure will show the spatial distribution of all Public Works projects versus the UNS structure as depicted in the BEPP.

**Figure C-7: Public Works projects in terms of the UNS Structure**

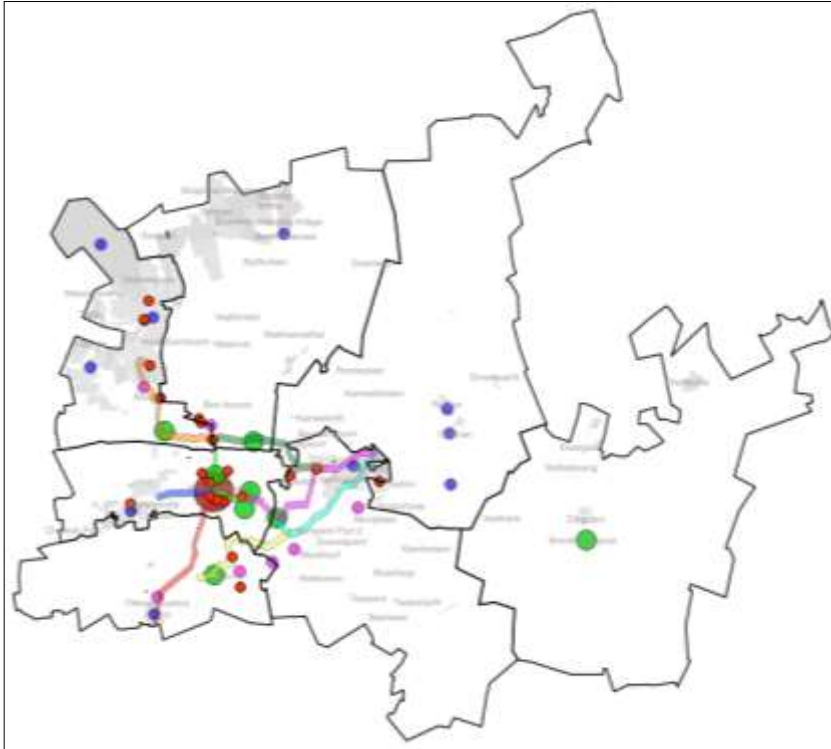


The image above shows the alignment between the spatial structuring elements and the various Public Works project locations. Please note that this analysis should facilitate a margin of spatial erroring as the exact and precise project locations are not known at the time of the development of this document. This does not mean that the major tendencies could be discredited.

#### **C.1.4.5 Spatial Distribution of PRASA projects per Department in terms of the UNS Structure**

The City of Tshwane's spatial structuring elements is the guiding elements for capital investment. To develop the ideal City, these structuring elements should be used as strict guidelines for Capital investments by any government institution. The following figure will show the spatial distribution of all PRASA projects versus the UNS structure as depicted in the BEPP.

**Figure C-8: PRASA Projects in terms of the UNS Structure**



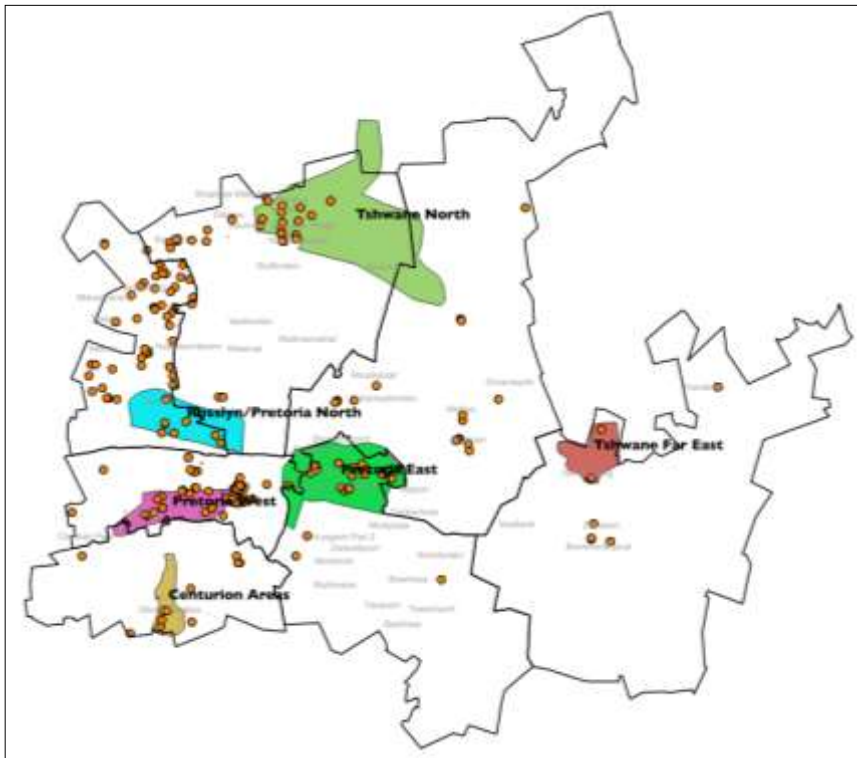
The image above shows the alignment between the spatial structuring elements and the various PRASA project locations. Please note that this analysis should facilitate a margin of spatial erroring as the exact and precise project locations are not known at the time of the development of this document. This does not mean that the major tendencies could be discredited.

#### ***C.1.4.6 Spatial Distribution of public entities in terms of the BEPP Priority Zones***

##### ***C.1.4.6.1 BEPP Priority Zones vs Gauteng Projects***

BEPP Priority Zones has been derived from the Urban Network Structure. These zones indicate spatial targeting, and represents the ideal and desired locations for investment with respect to the City. The following figure depicts the location of Gauteng Projects in terms of the BEPP Priority Zones. Given that the BEPP Priority Zones are specific delineated areas, it is understandable that various projects would not intersect with the BEPP Priority Zones. It is however worthy to consider the clustering within the BEPP Priority Zones. Pretoria West, Tshwane North, and Pretoria East gains the most benefit of Provincial spending as projects are clustered within these BEPP Priority Zones.

**Figure C-9: Gauteng Province spending in BEPP Priority Zones**



The Table C-8 below will show the financial distribution of Gauteng Projects in terms of BEPP Priority Zones.



**Table C-8: Gauteng Project MTREF financial distribution per BEPP Priority Zone**

Gauteng Department	Number of Projects	MTREF 2017/18	MTEF 2018/19	MTEF 2019/20
<b>Agriculture and Rural Development</b>	<b>7</b>	<b>R13 615 000</b>	<b>R39 650 000</b>	<b>R16 050 000</b>
No Intersect	6	R13 615 000	R39 650 000	R11 050 000
Tshwane North	1	R-	R-	R5 000 000
Education	63	R1 130 923 969	R326 911 380	R375 323 210
Centurion Areas	1	R4 405 000	R2 870 000	R-
Inner City	2	R-	R3 700 000	R500 000
No Intersect	43	R1 044 249 819	R251 881 040	R305 332 000
Pretoria East	6	R36 654 000	R16 635 340	R10 754 210
Pretoria West	3	R1 642 114	R9 547 000	R31 642 000
Rosslyn/Pretoria North	1	R2 487 000	R2 456 000	R-
Tshwane Far East	1	R-	R-	R3 000 000
Tshwane North	6	R41 486 036	R39 822 000	R24 095 000
<b>Health</b>	<b>68</b>	<b>R415 199 000</b>	<b>R33 200 000</b>	<b>R23 100 000</b>
Inner City	1	R36 200 000	R29 200 000	R23 100 000
No Intersect	51	R281 484 000	R2 000 000	R-
Pretoria East	3	R27 122 000	R-	R-
Pretoria West	7	R28 850 000	R-	R-
Rosslyn/Pretoria North	2	R13 308 000	R-	R-
Tshwane Far East	1	R500 000	R-	R-
Tshwane North	3	R27 735 000	R2 000 000	R-
<b>Human Settlements</b>	<b>77</b>	<b>R1 051 547 000</b>	<b>R1 083 310 000</b>	<b>R1 110 197 000</b>
Centurion Areas	3	R53 933 000	R51 315 000	R30 633 000
Inner City	2	R6 647 000	R32 468 000	R25 629 000
No Intersect	49	R772 503 000	R595 158 000	R709 958 000
Pretoria East	12	R152 554 000	R196 709 000	R199 192 000
Pretoria West	3	R8 321 000	R121 265 000	R78 217 000
Rosslyn/Pretoria North	4	R14 095 000	R44 605 000	R33 284 000
Tshwane Far East	1	R33 728 000	R25 518 000	R22 189 000
Tshwane North	3	R9 766 000	R16 272 000	R11 095 000
<b>Infrastructure Development</b>	<b>1</b>	<b>R1 139 000</b>	<b>R-</b>	<b>R-</b>
No Intersect	1	R1 139 000	R-	R-
<b>Social Development</b>	<b>3</b>	<b>R34 000 000</b>	<b>R-</b>	<b>R-</b>
No Intersect	3	R34 000 000	R-	R-
<b>Sports, Arts, Culture and Recreation</b>	<b>4</b>	<b>R69 985 000</b>	<b>R5 600 000</b>	<b>R9 800 000</b>
Inner City	1	R34 985 000	R-	R-
No Intersect	1	R-	R5 600 000	R9 800 000
Pretoria West	1	R20 000 000	R-	R-
Rosslyn/Pretoria North	1	R15 000 000	R-	R-
<b>Grand Total</b>	<b>223</b>	<b>R2 716 408 969</b>	<b>R1 488 671 380</b>	<b>R1 534 470 210</b>

Overall most Gauteng spending occurs outside the BEPP Priority Zones. Spending which occurs within the BEPP Priority Zones occurs mostly in Pretoria East (which includes Mamelodi) and Pretoria west (which includes Atteridgeville). Human Settlements spends the most in BEPP Priority Zones (57% of their budget) whereas Education spends the second most in BEPP Priority Zones (31% of their budget).

All other departments spend less than 2 % of their budget in BEPP Priority Zones except for Health who spends 8% of their budget in BEPP Priority Zones. Please refer to the table below.

**Table C-9: Gauteng Projects total MTREF compared with BEPP Priority Zones**

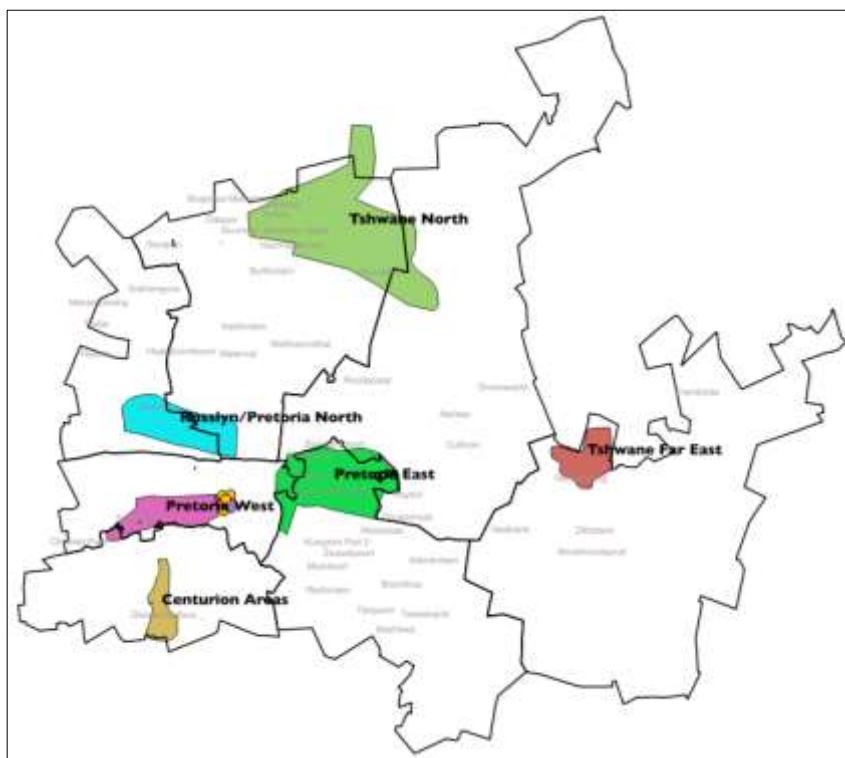
	No Intersect	Pretoria East	Pretoria West	Tshwane North	Inner City	Centurion Areas	Tshwane Far East	Rosslyn/Pretoria North	Grand Total	% of Total Budget
Agriculture and Rural Development	R64 315 000	R-	R-	R5 000 000	R-	R-	R5 000 000	R500 000	R69 315 000	1%
Education	R1 601 462 859	R64 043 550	R42 831 114	R105 403 036	R4 200 000	R7 275 000	R63 917 000	R84 435 000	R1 833 158 559	32%
Health	R283 484 000	R27 122 000	R28 850 000	R29 735 000	R88 500 000	R-	R2 000 000	R-	R471 499 000	8%
Human Settlements	R2 077 619 000	R548 455 000	R207 803 000	R37 133 000	R64 744 000	R135 881 000	R27 367 000	R47 707 000	R3 245 054 000	57%
Infrastructure Development	R1 139 000	R-	R-	R-	R-	R-	R-	R-	R1 139 000	0%
Social Development	R34 000 000	R-	R-	R-	R-	R-	R-	R84 935 000	R34 000 000	1%
Sports, Arts, Culture and Recreation	R15 400 000	R-	R20 000 000	R-	R34 985 000	R-	R-	R0	R85 385 000	1%
Total	R4 077 419 859	R639 620 550	R299 484 114	R177 271 036	R192 429 000	R143 156 000	R98 284 000	R50 707 000	R5 739 550 559	
% of Total Budget	71%	11%	5%	3%	3%	2%	2%	1%		

#### **C.1.4.7 BEPP Priority Zones vs Public Works Projects**

BEPP Priority Zones has been derived from the Urban Network Structure. These zones indicate spatial targeting, and represents the ideal and desired locations for investment with respect to the City. The following figure depicts the location of Public Works Projects in terms of the BEPP Priority Zones. It is however worthy to consider the clustering within the BEPP Priority Zones. The National Department of Public Works are clustered in the Inner City. The City of Tshwane, in conjunction with the National department of Public Works, has worked together to develop the Inner City Regeneration Strategy

with the aim to specifically target investment within the inner City which will unlock the economic potential within the Capital City of South Africa. The aim is to redevelop the Inner City which will benefit the whole city in various ways. This will be realized by the clustering of all national departments within the Inner City of Tshwane. Given that these projects is supported by a cabinet decision, and supported by various National entities, it is understandable that the capital budget of Public works with relation to the City is focused in the Inner City – which is also a BEPP Priority Zone of the City. To stimulate further development and the realization of the mentioned strategy, streamlined collaboration is required as it has been done in the Northern Gateway: the first precinct that will be under construction in the Inner City.

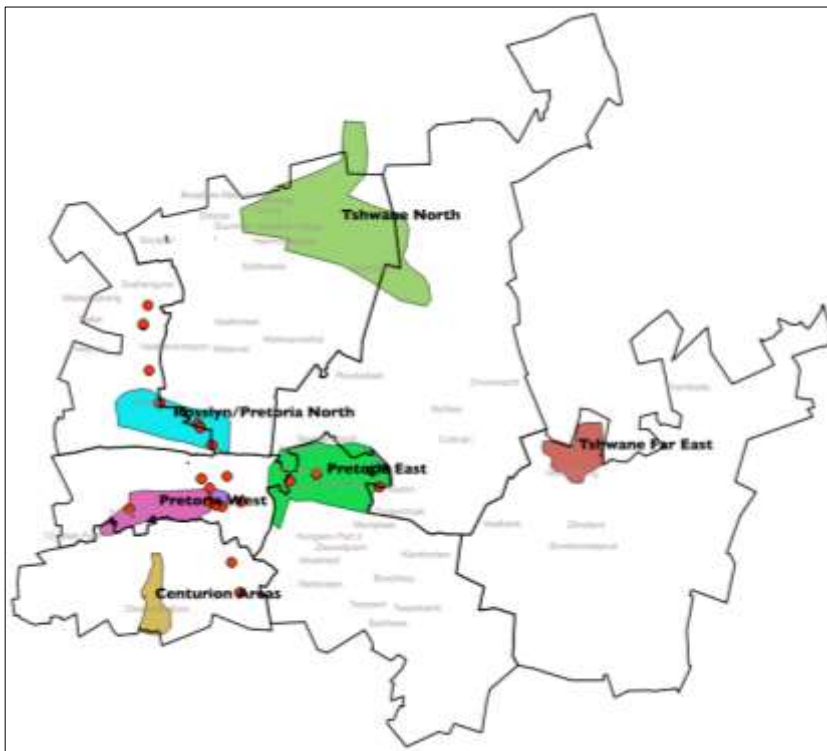
**Figure C-10: NDPW spending in BEPP Priority Zones**



#### ***C.1.4.8 BEPP Priority Zones vs PRASA Projects***

BEPP Priority Zones has been derived from the Urban Network Structure. These zones indicate spatial targeting, and represents the ideal and desired locations for investment with respect to the City. The following figure depicts the location of PRASA Projects in terms of the BEPP Priority Zones. It is understandable that the nature of infrastructure provided by PRASA are more linear in nature, and will not intersect totally with the BEPP Priority Zones. The function of PRASA and ideal spending of PRASA's capital will be in connecting the BEPP Priority Zones. From the figure below it is clear that PRASA is focused on linking the disadvantaged townships with the BEPP Priority Zones. This is in line with building the UNS, however, further investment is required in linking the other BEPP Priority Zones in such a way that the urban structure could provide various choices for City and PRASA occupants.

**Figure C-11: PRASA spending in BEPP Priority Zones**



## **C.2 Institutional Arrangements and Operating Budget**

Tshwane Finance to provide the Operating Budget and the Institutional Arrangements.

## **D Municipal Project Pipeline**

### **D.1 Spatial Budget Mix**

#### ***D.1.1 Introduction***

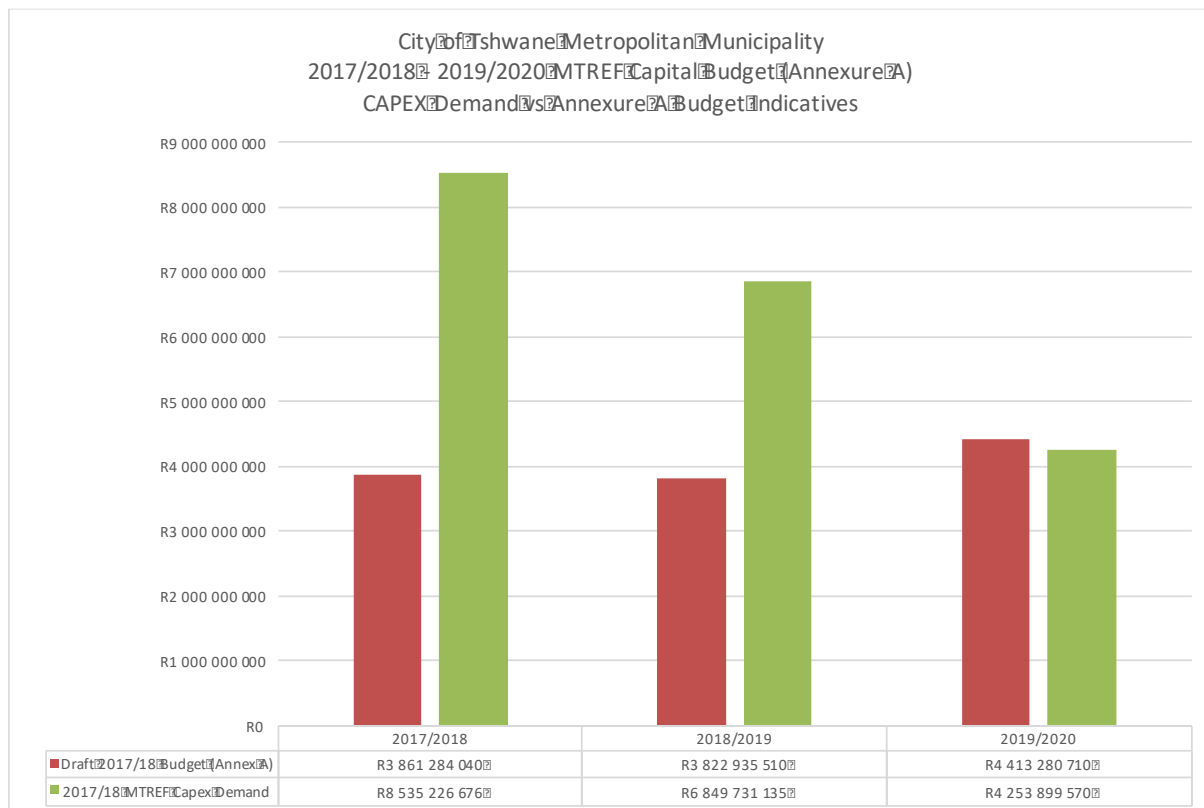
Budget guidelines relating to the compilation of the 2017/18 capital budgets were compiled in consultation with the Finance Department, Economic Development and Spatial Planning Department, City Strategy and Performance Management the IDP Office. Departments used these budget guidelines as a basis for their MTREF planning. Budget indicatives were issued to departments to take into consideration and align budget proposals to departmental business plans, objectives and targets.

All capital project requests were captured on the Capital Planning System (CaPS) in accordance with a data template, which was designed in consultation with Economic Development and Spatial Planning Department, Finance Department and City Strategy and Organisational Performance Office. The projects listed below is based on the Annexure A dated 17 March 2017.

The outcome of the IDP public participation will required departments to re-prioritise and adjust capital projects and resource allocations within the context of affordability considering inter alia contractual obligations, ongoing infrastructure maintenance and executive commitments. Adjustments to this project list will only incur once the IDP project list is final.

The compilation of the capital budget in terms of internal capacity (council funds) is based on the application of sound financial management principles to ensure that a funded budget is tabled. Taking this into consideration the Capital Budget Demands versus the Budget Indicatives (as per Annexure A) for the 2017/18, 2018/2019 and 2019/20 financial years is shown in Figure D-1.

The capital budget Indicatives amounts to only 315 projects within the CaPS system. The total number of projects on the system are 1324, thus only 23,7% of the number of projects has been allocated a budget within the budget indicatives. The table below shows the Budget Indicatives and the changes made by each adjustment to the budget and the comparison of the demand and the Budget Fitted to the supply of the Capital Budget.

**Figure D-1: 2017/18 MTREF Capital Budget Indicatives vs 2017/18 MTREF Capital Budget Demand****Table D-1: 2017/18 MTREF Draft Capital Budget Indicatives**

Budget Description	2016/17	2017/2018	2018/2019	2019/2020
Budget Indicatives 2016/17	R4 465 208 687	R3 704 064 120	R3 987 509 560	
CAPS Budget Fit 2016/17	R4 465 208 687	R3 704 064 120	R3 987 509 560	R2 021 261 916
Approved 2016/17 Budget (Annex A)	R4 465 208 687	R3 704 064 120	R3 993 509 560	
Adjusted 2016/17 Budget (Annex B)	R4 524 586 409	R3 745 956 118	R4 037 831 560	
Draft 2017/18 Budget (Annex A)		R3 861 284 040	R3 822 935 510	R4 413 280 710
2017/18 MTREF Capex Demand		R8 535 226 676	R6 849 731 135	R4 253 899 570
% Demand vs 2017/18 Indicative		221%	179%	96%

**D.1.2 2017/18 MTREF Draft Capital Budget (Annexure A) by MSCOA Expenditure Type**

This table brings together the core elements of the capital budget and summarises the capital programme in terms of Capital, Operational and Default Transactions as per the mSCOA expenditure classification. The objective is to provide a complete picture of the municipality's expenditure of the capital budget.

**Table D-2: 2017/18 MTREF Draft Capital Budget (Annexure A) by Expenditure Type**

Expenditure Type	2017/2018	%	2018/2019	%	2019/2020	%
Capital	R3 755 029 792	97%	R3 728 020 084	98%	R4 277 780 710	97%
Operational	R106 254 248	3%	R94 915 426	2%	R135 500 000	3%
Grand Total	R3 861 284 040	100%	R3 822 935 510	100%	R4 413 280 710	100%

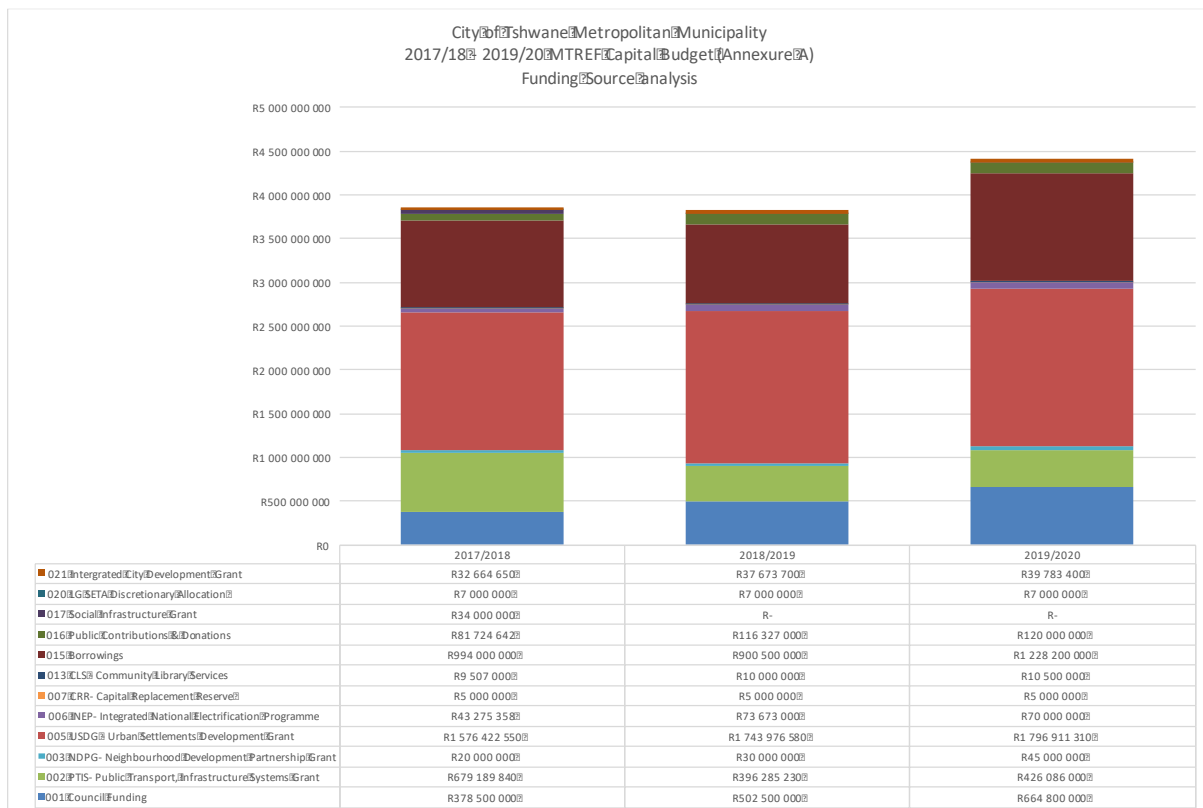
From the above table, 97%, 98% and 96% of the capital budget has been allocated for the capital project/ assets in the 2017/18, 2018/19 and 2019/20 financial years respectively. Accordingly, the bulk of the Capital Budget expenditure is focused on capital projects.

### ***D.1.3 2017/18 MTREF Draft Capital Budget (Annexure A) by Funding Source Indicatives***

The 2017/18 MTREF capital budget by funding source is shown in Table D-3 and Figure D-2.

**Table D-3: 2016/17 MTREF Draft Capital Budget (Annexure A) by Funding Source Indicatives**

Code	Fund Name	2017/2018	%	2018/2019	%	2019/2020	%
001	Council Funding	R378 500 000	9,8%	R502 500 000	13,1%	R664 800 000	15,1%
002	PTIS- Public Transport, Infrastructure Systems Grant	R679 189 840	17,6%	R396 285 230	10,4%	R426 086 000	9,7%
003	NDPG- Neighbourhood Development Partnership Grant	R20 000 000	0,5%	R30 000 000	0,8%	R45 000 000	1,0%
005	USDG - Urban Settlements Development Grant	R1 576 422 550	40,8%	R1 743 976 580	45,6%	R1 796 911 310	40,7%
006	INEP- Integrated National Electrification Programme	R43 275 358	1,1%	R73 673 000	1,9%	R70 000 000	1,6%
007	CRR- Capital Replacement Reserve	R5 000 000	0,1%	R5 000 000	0,1%	R5 000 000	0,1%
013	CLS - Community Library Services	R9 507 000	0,2%	R10 000 000	0,3%	R10 500 000	0,2%
015	Borrowings	R994 000 000	25,7%	R900 500 000	23,6%	R1 228 200 000	27,8%
016	Public Contributions & Donations	R81 724 642	2,1%	R116 327 000	3,0%	R120 000 000	2,7%
017	Social Infrastructure Grant	R34 000 000	0,9%	R-	0,0%	R-	0,0%
020	LG SETA Discretionary Allocation	R7 000 000	0,2%	R7 000 000	0,2%	R7 000 000	0,2%
021	Integrated City Development Grant	R32 664 650	0,8%	R37 673 700	1,0%	R39 783 400	0,9%
<b>TOTAL</b>		<b>R3 861 284 040</b>	<b>100,0%</b>	<b>R3 822 935 510</b>	<b>100,0%</b>	<b>R4 413 280 710</b>	<b>100,0%</b>

**Figure D-2: 2017/18 MTREF Capital Budget (Annexure A) by Funding Source Indicatives****Table D-4: 2017/18 MTREF Draft Capital Budget (Annexure A) Funding Code Grant Ratio**

Funding Source Summary	2017/2018	%	2018/2019	%	2019/2020	%
Internal Funds (Council, Cash Reserves and Public Contributions)	R465 224 642	12,05%	R623 827 000	16,32%	R789 800 000	17,90%
Borrowings	R994 000 000	25,74%	R900 500 000	23,56%	R1 228 200 000	27,83%
National and Provincial Grants	R2 402 059 398	62,21%	R2 298 608 510	60,13%	R2 395 280 710	54,27%
<b>Total</b>	<b>R3 861 284 040</b>	<b>100,00%</b>	<b>R3 822 935 510</b>	<b>100,00%</b>	<b>R4 413 280 710</b>	<b>100,00%</b>

A comparative analysis between the 2016/17 MTREF and the 2017/18 MTREF capital budget funding source indicated that the capital budget funding source reliance on state and provincial grants remained constant. The following key observations can be made:

- Internally generated revenue (including Public Contributions and Donations and CRR) amounted to approximately R1,085 billion (24%) in 2016/17 which decreased to R456 million (12,05%) in 2017/18.
- Borrowings which amounted to R1 billion (22%) in 2016/17, remained largely unchanged at R994 million (25,7%) in 2017/18.



- Grant funding amounted to R2,38 billion (53%) in 2016/17 which increased to R 2,4 billion (62,2%) during 2017/18.

The following should be noted about these conditional grants:

- Urban Settlements Development Grant (USDG)

The purpose of the USDG is to assist metropolitan municipalities to improve urban land production to the benefit of poor households, by supplementing the revenues of metropolitan municipalities to: reduce the real average cost of urban land, increase the supply of well-located land, enhance tenure security and quality of life in informal settlements, improve spatial densities and to subsidise the capital costs of acquiring land and providing basic services for poor households. The gazetted allocations in the MTREF 2017/18 amount to R 1,57 billion (40,8%) for 2017/18, R 1,74 billion (45,6%) for 2018/19 and R 1,79 billion (40,7%) during 2019/20. Allocation of the outer year to be gazetted with the approval of the MTREF 2017/18.

- Public Transport, Infrastructure and Systems Grant

The purpose of the grant is to provide for accelerated planning, construction and improvement of public and non-motorised transport infrastructure and services. The gazetted allocations in the MTREF 2017/18 amount to R 679 million (17,6%) for 2017/18, R 396 million (10,4%) for 2018/19 and R 426 million (9,7%) during 2019/20. Allocation of the outer year to be gazetted with the approval of the MTREF 2017/18.

- Neighbourhood Development Partnership Grant

The purpose of this NDPG grant is to support neighbourhood development projects that provide community infrastructure and create the platform for other public and private sector development, towards improving the quality of life of residents in targeted underserved neighbourhoods. The gazetted allocations in the MTREF 2017/18 amount to R 20 million (0,5%) for 2017/18, R 30 million (0,8%) for 2018/19 and R 45 million (1,0%) during 2019/20. Allocation of the outer year to be gazetted with the approval of the MTREF 2017/18.

- Integrated National Electrification Programme

The purpose of this grant is to implement the Integrated National Electrification Programme (INEP) by providing capital subsidies to municipalities to address the electrification backlog of occupied residential dwellings, clinics and the installation of bulk infrastructure and rehabilitation and refurbishment of electricity infrastructure to improve the quality of supply. The gazetted allocations in the MTREF 2017/18 amount to R 43 million (1,1%) for 2017/18, R 73 million (1,9%)

for 2018/19 and R 70 million (1,6%) during 2019/20. Allocation of the outer year to be gazetted with the approval of the MTREF 2017/18.

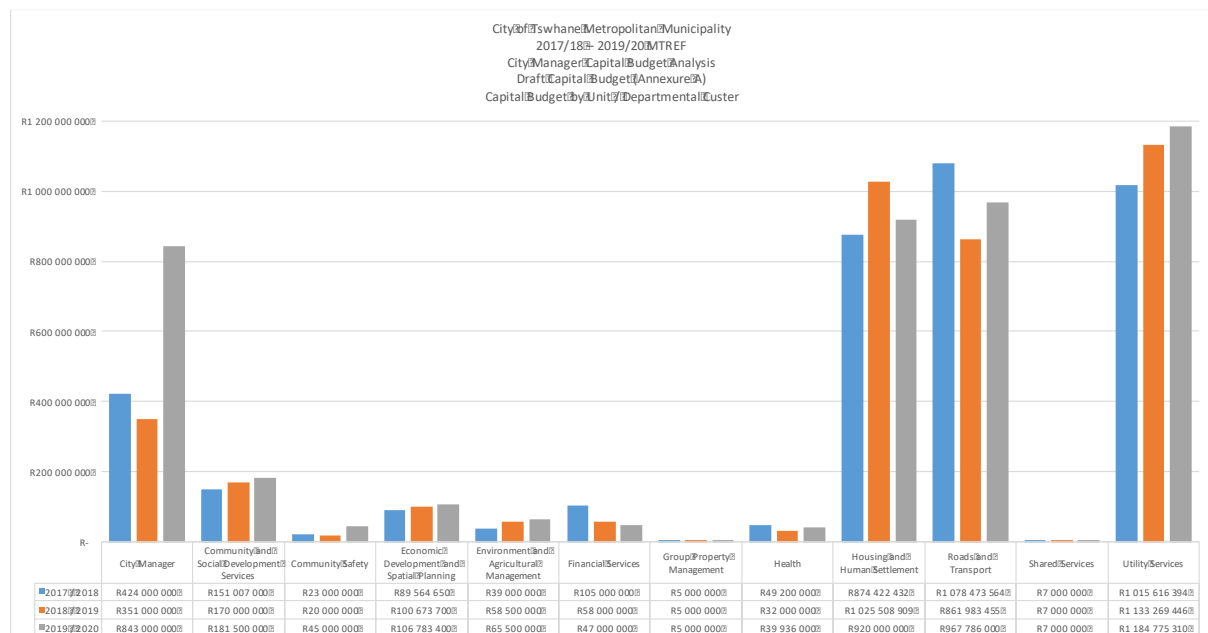
#### D.1.4 2017/18 MTREF Draft Capital Budget (Annexure A) by Departmental Cluster

The 2017/18 MTREF draft capital budget as per Annexure A by departmental cluster is shown in Table D-5 and Figure D-3.

**Table D-5: 2017/18 MTREF Draft Capital Budget (Annexure A) by Departmental Cluster**

Departmental Cluster	2017 / 2018	2018 / 2019	2019 / 2020
City Manager	R424 000 000	R351 000 000	R843 000 000
Community and Social Development Services	R151 007 000	R170 000 000	R181 500 000
Community Safety	R23 000 000	R20 000 000	R45 000 000
Economic Development and Spatial Planning	R89 564 650	R100 673 700	R106 783 400
Environment and Agricultural Management	R39 000 000	R58 500 000	R65 500 000
Financial Services	R105 000 000	R58 000 000	R47 000 000
Group Property Management	R5 000 000	R5 000 000	R5 000 000
Health	R49 200 000	R32 000 000	R39 936 000
Housing and Human Settlement	R874 422 432	R1 025 508 909	R920 000 000
Roads and Transport	R1 078 473 564	R861 983 455	R967 786 000
Shared Services	R7 000 000	R7 000 000	R7 000 000
Utility Services	R1 015 616 394	R1 133 269 446	R1 184 775 310
<b>Grand Total</b>	<b>R3 861 284 040</b>	<b>R3 822 935 510</b>	<b>R4 413 280 710</b>

**Figure D-3: 2017/18 MTREF Draft Capital Budget (Annexure A) by Departmental Cluster**



A large amount of the capital budget demand is allocated to several key infrastructure departments focussing on creating economic infrastructure correlating to Annexure A figures. Table D-6 shows that Roads and Transport (comprising of Airports, Public Transport and Roads and

Stormwater), Utilities (comprising of Water and Sanitation and Energy and Electricity) and Housing and Human Settlements (including the Housing Company) account for 76,9% of the 2017/18 capital budget, 79% of the 2018/19 capital budget and 69,6% of the 2019/20 capital budget expenditure.

**Table D-6: 2017/18 MTREF Draft Capital Budget (Annexure A) focused on Basic Service Delivery**

Departments	2017 / 2018	% of Budget	2018 / 2019	% of Budget	2019 / 2020	% of Budget
Housing and Human Settlement	R874 422 432	22,6%	R1 025 508 909	26,8%	R920 000 000	20,8%
Roads and Transport	R1 078 473 564	27,9%	R861 983 455	22,5%	R967 786 000	21,9%
Utility Services	R1 015 616 394	26,3%	R1 133 269 446	29,6%	R1 184 775 310	26,8%
Total of Basic Services	R2 968 512 390	76,9%	R3 020 761 810	79,0%	R3 072 561 310	69,6%
<b>Total Capital Budget</b>	<b>R3 861 284 040</b>	<b>100,0%</b>	<b>R3 822 935 510</b>	<b>100,0%</b>	<b>R4 413 280 710</b>	<b>100,0%</b>

This capital budget distribution is indicative of a basic service delivery focussed budget where significant investment is being focussed on achieving a desirable built environment and urban form. The next section will focus on analysing the 2017/18 MTREF Draft Capital Budget (Annexure A) in terms of the spatial transformation agenda of the city, particularly with regards to the Capital Investment Targeting areas (emanating from the Capital Investment Framework report) as well as the spatial development focus areas highlighted in the Metropolitan Spatial Development Framework (MSDF).

### ***D.1.5 2017/18 MTREF Draft Capital Budget (Annexure A) Spatial Analysis***

#### ***D.1.5.1 Value of Capital by Region***

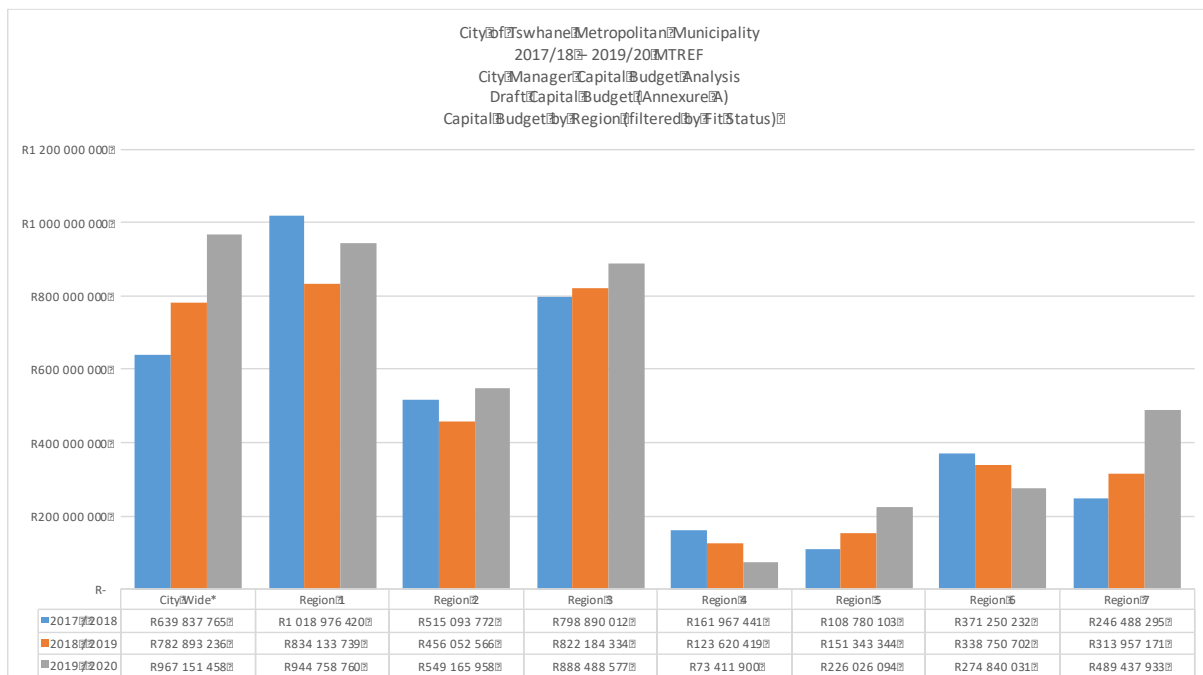
The regional capital analysis was undertaken by means of the Tshwane Capital Planning system, which allows for the spatial referencing of capital projects. The CaPS system indicates that 315 projects comprise the 2017/18 MTREF capital budget demand, of which 263 (83,5%) of the projects are spatially reference.

The 2017/18 MTREF Draft Capital Budget (Annexure A) analysis indicates that R639 million (16,6%) of the 2017/18 MTREF capital is City Wide or on Operational Capex in 2017/18, whereas the remainder of the budget is distributed over the various regions (Refer to Table D-7 **Error! Reference source not found.**). Region 1, 2, 3 and 6 receive most the capital expenditure, accounting for approximately 70% of the capital demand. Region 1 has the highest capital budget of 26,4%, following by Region 3 at 20,7% and Region 2 at 13,3% capital budget within the 2017/18 financial year.

**Table D-7: 2017/18 MTREF Draft Capital Budget (Annexure A) Regional Analysis**

<b>Regions</b>	<b>2017 / 2018</b>	<b>%</b>	<b>2018 / 2019</b>	<b>%</b>	<b>2019 / 2020</b>	<b>%</b>
City Wide*	R639 837 765	16,6%	R782 893 236	20,5%	R967 151 458	21,9%
Region 1	R1 018 976 420	26,4%	R834 133 739	21,8%	R944 758 760	21,4%
Region 2	R515 093 772	13,3%	R456 052 566	11,9%	R549 165 958	12,4%
Region 3	R798 890 012	20,7%	R822 184 334	21,5%	R888 488 577	20,1%
Region 4	R161 967 441	4,2%	R123 620 419	3,2%	R73 411 900	1,7%
Region 5	R108 780 103	2,8%	R151 343 344	4,0%	R226 026 094	5,1%
Region 6	R371 250 232	9,6%	R338 750 702	8,9%	R274 840 031	6,2%
Region 7	R246 488 295	6,4%	R313 957 171	8,2%	R489 437 933	11,1%
<b>Total</b>	<b>R3 861 284 040</b>	<b>100,0%</b>	<b>R3 822 935 510</b>	<b>100,0%</b>	<b>R4 413 280 710</b>	<b>100,0%</b>

*Note: \* denotes city-wide, operational capital or unmapped projects*

**Figure D-4: 2017/18 MTREF Draft Capital Budget (Annexure A) Regional Analysis**

Note: City Wide\* denotes city-wide, operational capital or unmapped projects.

#### **D.1.5.2 Value of Capital by Ward level**

The 2017/18 MTREF Draft Capital Budget (Annexure A) analysis indicates that Ward 58 requested R 222 million (6,9%) of the 2017/18 MTREF capital budget, whereas the remainder of the budget is distributed over the various wards (Refer to Table D-8). Ward 58, 90, 50, 75 and 32 are the top 5 wards in the 2017/2018 MTREF capital budget. In 2018/19 the highest demand of capital is in ward 58, with R 229 million (7,5%) highest the capital request in the budget.

**Table D-8: 2017/18 MTREF Draft Capital Budget (Annexure A) by Ward level**

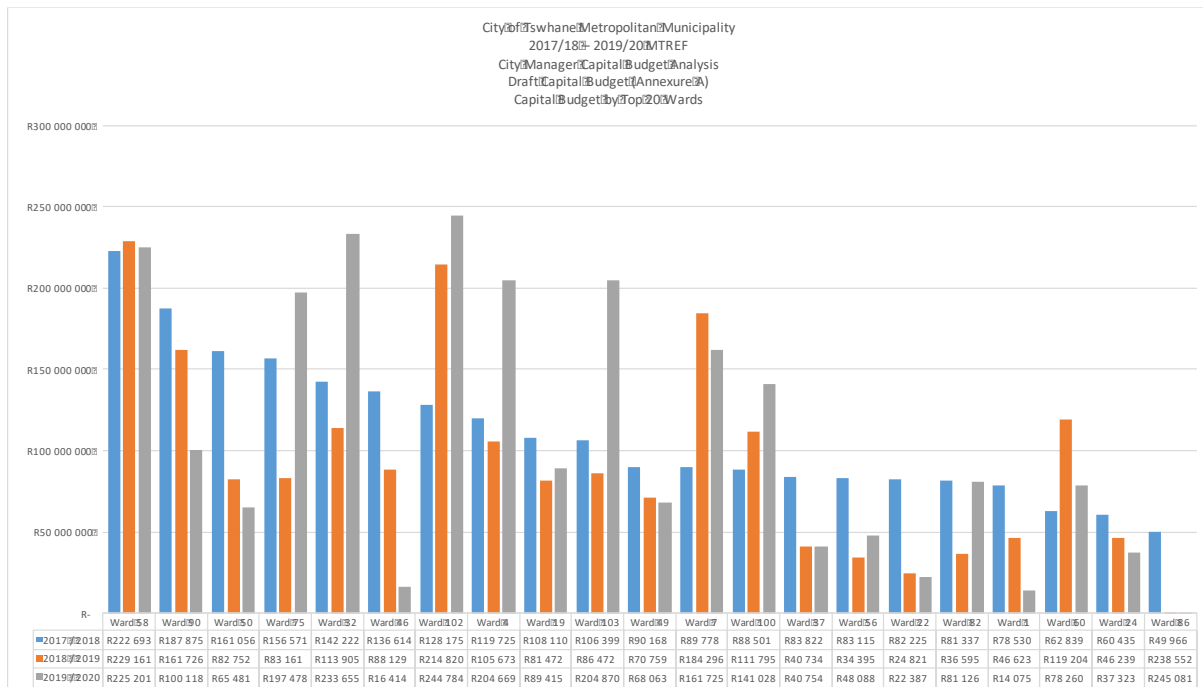
Wards	2017 / 2018	%	2018 / 2019	%	2019 / 2020	%
Ward 1	R78 530 751	2,4%	R46 623 002	1,5%	R14 075 432	0,4%
Ward 2	R253 716	0,0%	R288 123	0,0%	R1 013 963	0,0%
Ward 3	R46 350 609	1,4%	R43 483 975	1,4%	R35 593 123	1,0%
Ward 4	R119 725 840	3,7%	R105 673 989	3,5%	R204 669 134	5,9%
Ward 5	R964 765	0,0%	R931 002	0,0%	R1 236 806	0,0%
Ward 6	R2 568 644	0,1%	R5 799 580	0,2%	R46 085 724	1,3%
Ward 7	R89 778 533	2,8%	R184 296 499	6,1%	R161 725 071	4,7%
Ward 8	R6 175 065	0,2%	R3 096 812	0,1%	R791 191	0,0%
Ward 9	R2 128 436	0,1%	R2 191 830	0,1%	R1 246 547	0,0%
Ward 10	R10 028 257	0,3%	R10 003 579	0,3%	R5 556 405	0,2%
Ward 11	R41 215 533	1,3%	R1 117 434	0,0%	R553 145	0,0%
Ward 12	R34 004 942	1,1%	R21 587 370	0,7%	R9 107 141	0,3%
Ward 13	R23 518 197	0,7%	R99 224 739	3,3%	R84 172 666	2,4%
Ward 14	R10 037 062	0,3%	R20 009 401	0,7%	R31 344 188	0,9%

Wards	2017 / 2018	%	2018 / 2019	%	2019 / 2020	%
Ward 15	R2 830 526	0,1%	R10 644 644	0,4%	R13 516 062	0,4%
Ward 16	R2 449 441	0,1%	R177 356	0,0%	R42 353 066	1,2%
Ward 17	R1 660 255	0,1%	R5 092	0,0%	R13 579 633	0,4%
Ward 18	R6 565 896	0,2%	R6 785 658	0,2%	R9 785 658	0,3%
Ward 19	R108 110 333	3,4%	R81 472 126	2,7%	R89 415 961	2,6%
Ward 20	R2 977 445	0,1%	R32 683 794	1,1%	R16 326 753	0,5%
Ward 21	R14 798 705	0,5%	R25 922 127	0,9%	R11 748 061	0,3%
Ward 22	R82 225 020	2,6%	R24 821 627	0,8%	R22 387 094	0,6%
Ward 23	R1 843 443	0,1%	R10 387 603	0,3%	R10 387 603	0,3%
Ward 24	R60 435 600	1,9%	R46 239 391	1,5%	R37 323 013	1,1%
Ward 25	R1 905 092	0,1%	R11 630 319	0,4%	R15 731 446	0,5%
Ward 26	R21 743 476	0,7%	R31 558 475	1,0%	R10 748 273	0,3%
Ward 27	R21 052 586	0,7%	R11 100 331	0,4%	R620 502	0,0%
Ward 28	R732 304	0,0%	R882 803	0,0%	R2 215 352	0,1%
Ward 29	R35 091 273	1,1%	R30 569 793	1,0%	R21 532 156	0,6%
Ward 30	R501 831	0,0%	R453 508	0,0%	R3 453 508	0,1%
Ward 31	R25 280	0,0%	R6 413	0,0%	R6 413	0,0%
Ward 32	R142 222 102	4,4%	R113 905 461	3,7%	R233 655 515	6,8%
Ward 33	R1 088 142	0,0%	R1 006 176	0,0%	R3 738 018	0,1%
Ward 34	R2 814 288	0,1%	R3 798 093	0,1%	R3 072 649	0,1%
Ward 35	R6 135 313	0,2%	R15 310 849	0,5%	R22 001 689	0,6%
Ward 36	R4 260 431	0,1%	R15 362 544	0,5%	R10 178 985	0,3%
Ward 37	R83 822 765	2,6%	R40 734 772	1,3%	R40 754 810	1,2%
Ward 38	R40 296 313	1,3%	R25 338 911	0,8%	R25 342 056	0,7%
Ward 39	R1 795 702	0,1%	R12 606 921	0,4%	R13 353 344	0,4%
Ward 40	R33 072 664	1,0%	R42 369 139	1,4%	R48 330 026	1,4%
Ward 41	R1 835 881	0,1%	R1 711 795	0,1%	R1 835 453	0,1%
Ward 42	R2 767 755	0,1%	R2 576 585	0,1%	R2 846 202	0,1%
Ward 43	R11 485 020	0,4%	R6 286 611	0,2%	R6 865 461	0,2%
Ward 44	R12 232 694	0,4%	R27 668 390	0,9%	R6 243	0,0%
Ward 45	R32 122	0,0%	R25 303 651	0,8%	R38 935	0,0%
Ward 46	R136 614 988	4,2%	R88 129 340	2,9%	R16 414 814	0,5%
Ward 47	R51 636	0,0%	R537 377	0,0%	R1 385 197	0,0%
Ward 48	R188 454	0,0%	R7 357 045	0,2%	R157 045	0,0%
Ward 49	R90 168 058	2,8%	R70 759 394	2,3%	R68 063 022	2,0%
Ward 50	R161 056 211	5,0%	R82 752 610	2,7%	R65 481 031	1,9%
Ward 51	R4 484 797	0,1%	R3 812 967	0,1%	R2 736 248	0,1%
Ward 52	R4 750 155	0,1%	R4 584 750	0,2%	R4 970 567	0,1%
Ward 53	R3 294 029	0,1%	R3 062 314	0,1%	R3 226 975	0,1%
Ward 54	R1 030 035	0,0%	R1 025 215	0,0%	R3 028 680	0,1%
Ward 55	R9 545 924	0,3%	R9 718 101	0,3%	R3 550 044	0,1%
Ward 56	R83 115 583	2,6%	R34 395 228	1,1%	R48 088 508	1,4%
Ward 57	R15 981 878	0,5%	R10 796 261	0,4%	R10 465 929	0,3%

Wards	2017 / 2018	%	2018 / 2019	%	2019 / 2020	%
Ward 58	R222 693 584	6,9%	R229 161 156	7,5%	R225 201 240	6,5%
Ward 59	R11 842 261	0,4%	R13 753 993	0,5%	R32 611 847	0,9%
Ward 60	R62 839 961	2,0%	R119 204 792	3,9%	R78 260 988	2,3%
Ward 61	R7 113 136	0,2%	R7 664 740	0,3%	R6 703 881	0,2%
Ward 62	R5 108 894	0,2%	R4 344 067	0,1%	R3 115 824	0,1%
Ward 63	R2 511 571	0,1%	R3 001 543	0,1%	R4 001 543	0,1%
Ward 64	R17 674	0,0%	R15 226	0,0%	R15 723	0,0%
Ward 65	R2 891 222	0,1%	R4 167 813	0,1%	R3 154 514	0,1%
Ward 66	R1 413 911	0,0%	R2 938 689	0,1%	R1 448 120	0,0%
Ward 67	R1 206 228	0,0%	R1 186 269	0,0%	R1 186 269	0,0%
Ward 68	R15 009 893	0,5%	R10 002 058	0,3%	R10 002 058	0,3%
Ward 69	R7 846 601	0,2%	R3 626 340	0,1%	R2 928 512	0,1%
Ward 70	R34 518 863	1,1%	R17 025 238	0,6%	R4 440 004	0,1%
Ward 71	R1 572	0,0%	R1 310	0,0%	R1 310	0,0%
Ward 72	R2 125 316	0,1%	R1 807 348	0,1%	R1 296 538	0,0%
Ward 73	R2 535 133	0,1%	R763 648	0,0%	R945 734	0,0%
Ward 74	R38 294 337	1,2%	R62 986 278	2,1%	R34 027 671	1,0%
Ward 75	R156 571 810	4,9%	R83 161 317	2,7%	R197 478 390	5,7%
Ward 76	R6 037 761	0,2%	R10 028 800	0,3%	R10 029 582	0,3%
Ward 77	R48 529 006	1,5%	R39 904 888	1,3%	R40 150 001	1,2%
Ward 78	R21 895 111	0,7%	R1 934 384	0,1%	R2 113 767	0,1%
Ward 79	R21 571 584	0,7%	R28 189 795	0,9%	R1 834 404	0,1%
Ward 80	R29 552 934	0,9%	R26 514 829	0,9%	R98 010 529	2,8%
Ward 81	R33 287 022	1,0%	R35 267 228	1,2%	R32 962 531	1,0%
Ward 82	R81 337 818	2,5%	R36 595 875	1,2%	R81 126 912	2,4%
Ward 83	R297 934	0,0%	R111 678	0,0%	R1 698 782	0,0%
Ward 84	R7 704 811	0,2%	R7 864 884	0,3%	R8 511 122	0,2%
Ward 85	R11 309 852	0,4%	R21 953 824	0,7%	R13 620	0,0%
Ward 86	R49 966 124	1,6%	R238 552	0,0%	R245 081	0,0%
Ward 87	R11 847 560	0,4%	R11 597 971	0,4%	R22 467 921	0,7%
Ward 88	R1 436 115	0,0%	R1 726 489	0,1%	R24 067 029	0,7%
Ward 89	R3 579 163	0,1%	R25 087 560	0,8%	R24 746 494	0,7%
Ward 90	R187 875 123	5,8%	R161 726 663	5,3%	R100 118 424	2,9%
Ward 91	R8 961 299	0,3%	R19 446 174	0,6%	R15 159 873	0,4%
Ward 92	R1 226 207	0,0%	R1 086 615	0,0%	R33 545 284	1,0%
Ward 93	R31 732 541	1,0%	R30 235 083	1,0%	R6 462 103	0,2%
Ward 94	R23 694 164	0,7%	R1 247 287	0,0%	R640 616	0,0%
Ward 95	R24 000	0,0%	R4 942 464	0,2%	R28 108 267	0,8%
Ward 96	R19 711 375	0,6%	R17 396 099	0,6%	R27 487 410	0,8%
Ward 97	R9 886	0,0%	R1 252	0,0%	R2 830 276	0,1%
Ward 98	R14 057 991	0,4%	R14 304 267	0,5%	R22 548 074	0,7%
Ward 99	R8 430 697	0,3%	R27 949 584	0,9%	R62 529 772	1,8%
Ward 100	R88 501 845	2,7%	R111 795 790	3,7%	R141 028 401	4,1%

Wards	2017 / 2018	%	2018 / 2019	%	2019 / 2020	%
Ward 101	R3 466 286	0,1%	R3 546 339	0,1%	R3 546 339	0,1%
Ward 102	R128 175 454	4,0%	R214 820 083	7,1%	R244 784 782	7,1%
Ward 103	R106 399 489	3,3%	R86 472 142	2,8%	R204 870 121	5,9%
Ward 104	R424 930	0,0%	R209 963	0,0%	R34 374 013	1,0%
Ward 105	R11 488 423	0,4%	R12 454 983	0,4%	R5 409 016	0,2%
<b>Total</b>	<b>R3 221 446 262</b>	<b>100,0%</b>	<b>R3 040 042 267</b>	<b>100,0%</b>	<b>R3 446 129 252</b>	<b>100,0%</b>

**Figure D-5: 2017/18 MTREF Draft Capital Budget (Annexure A) Top 25 Wards**



#### **D.1.5.3 Value of Capital Demand by Node Area**

The MSDF nodes are defined as those underserved areas where high density of population resides and where significant infrastructure backlogs exist (refer to Figure D-6).

The MSDF node capital demand analysis was undertaken by means of the Tshwane Capital Planning system (CaPS), which allows for the spatial referencing of capital projects. The capital demand analysis of the 2017/18 MTREF Draft Capital Budget (Annexure A) by MSDF node area is shown in Figure D-7.



Figure D-6: City of Tshwane MSDF Node Areas

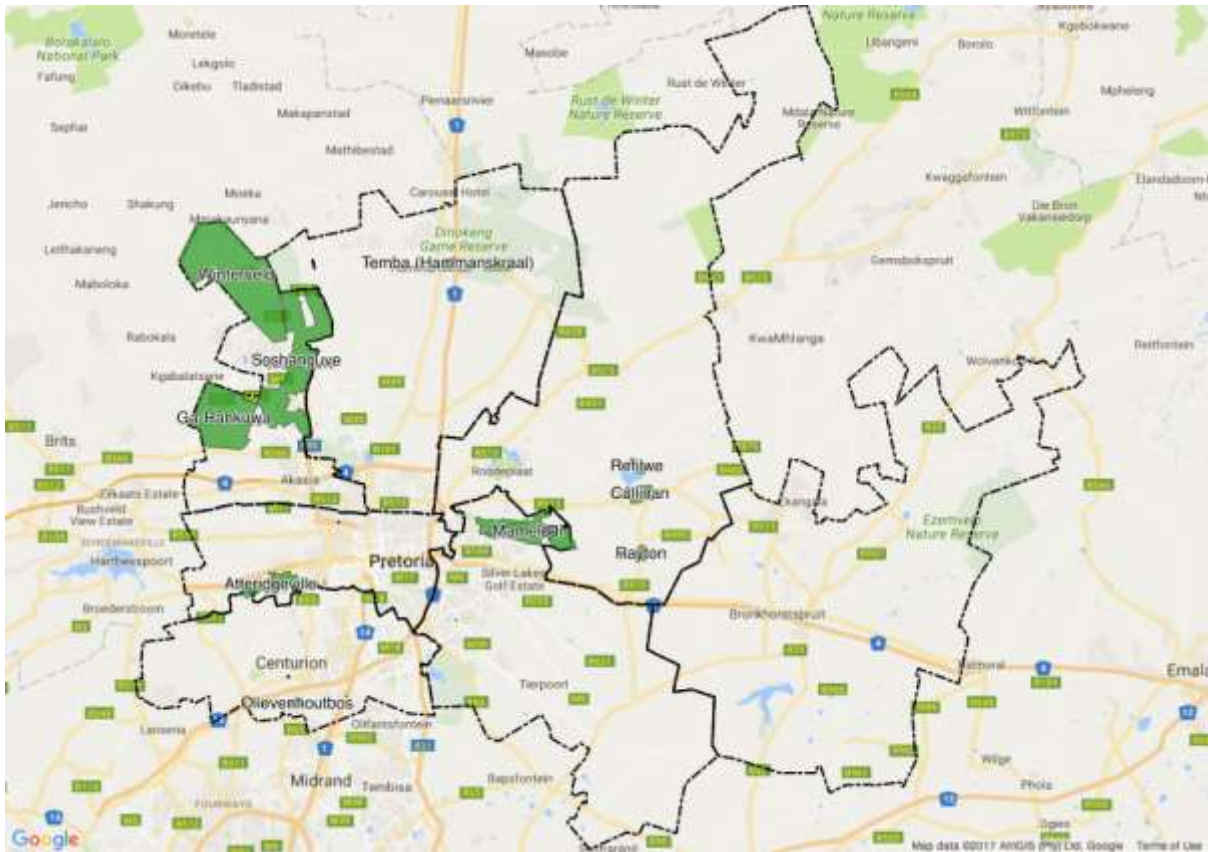
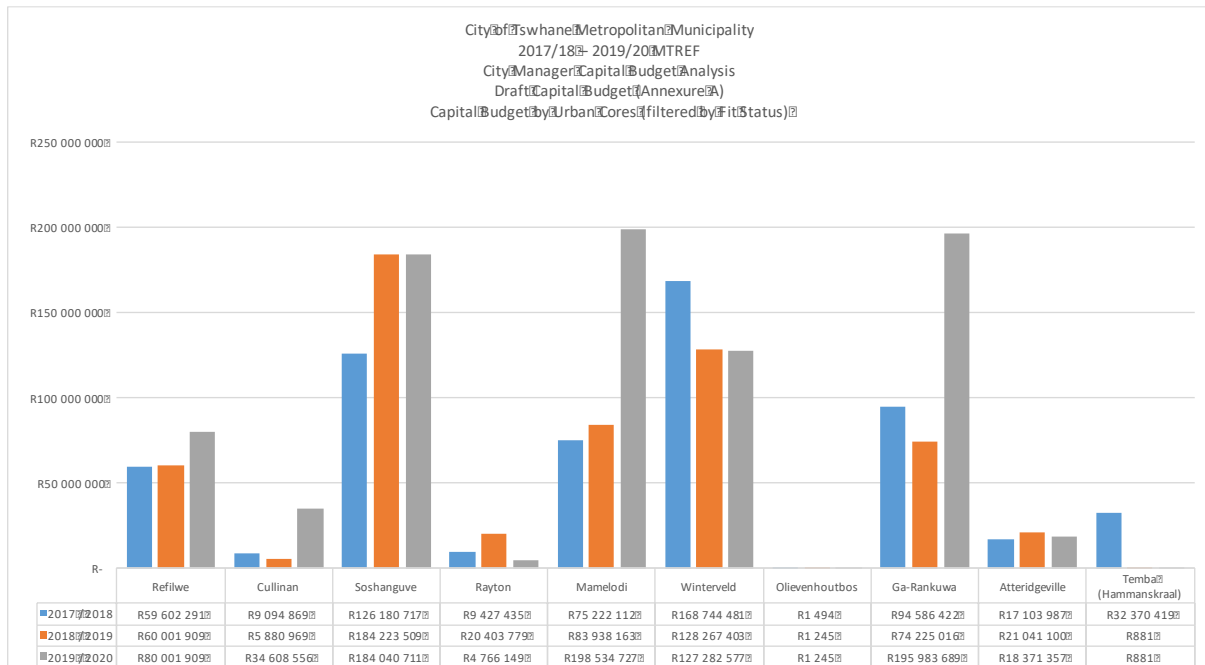


Figure D-7: 2017/18 MTREF Draft Capital Budget (Annexure A) MSDF Node Area Analysis



The analysis indicates that approximately R592 million is requested in Node areas, which amounts to approximately 15,3% of the capital budget total. The comparative spending analysis of the 2017/18 MTREF capital budget by Node area indicates that most of the Node expenditure is allocated to

Winterveld at R168 million (28,4%) followed by Soshanguve at R126 million (21,3%). Ga-Rankuwa requested the third highest at R 94 million (15,9%) within the capital budget.

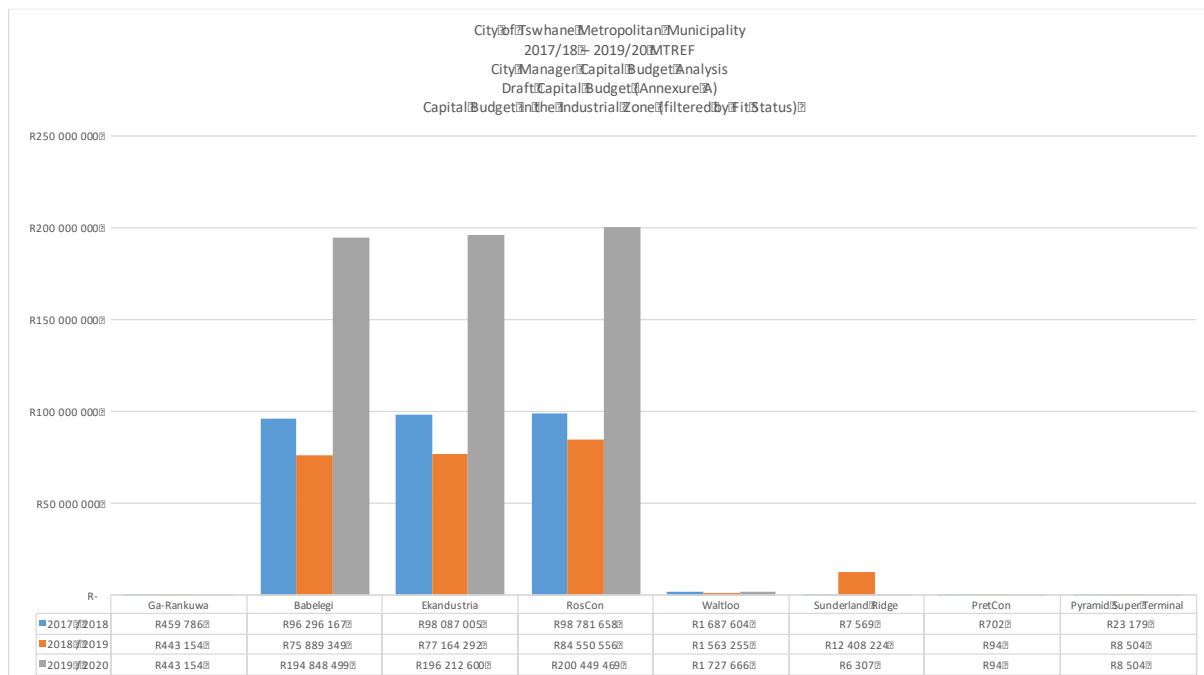
#### **D.1.5.4 Value of Capital by Industrial Nodes**

The MSDF industrial node capital demand analysis was undertaken by means of the Tshwane Capital Planning System (refer to Figure D-8), which allows for the spatial referencing of capital projects. The capital demand analysis of the 2017/18 MTREF Capital Budget by MSDF industrial node area is shown in Figure D-8.

**Figure D-8: City of Tshwane MSDF Industrial Nodes**



The analysis indicates that R295 million (7,6%) of the capital budget is requested in Industrial nodes. The analysis of the 2017/18 MTREF capital budget by industrial node indicates that most of the industrial node expenditure is allocated to RosCon at R98,7 million (33,4%), followed by Ekandustria at R98 million (33,2%) and then Babelegi at R96 million (32,6%). RosCon has the highest capital budget over all 3 MTREF years at R383 million.

**Figure D-9: 2017/18 MTREF Draft Capital Budget (Annexure A) MSDF Industrial Node Analysis****D.1.5.5 Value of Capital in SDF Metropolitan Nodes**

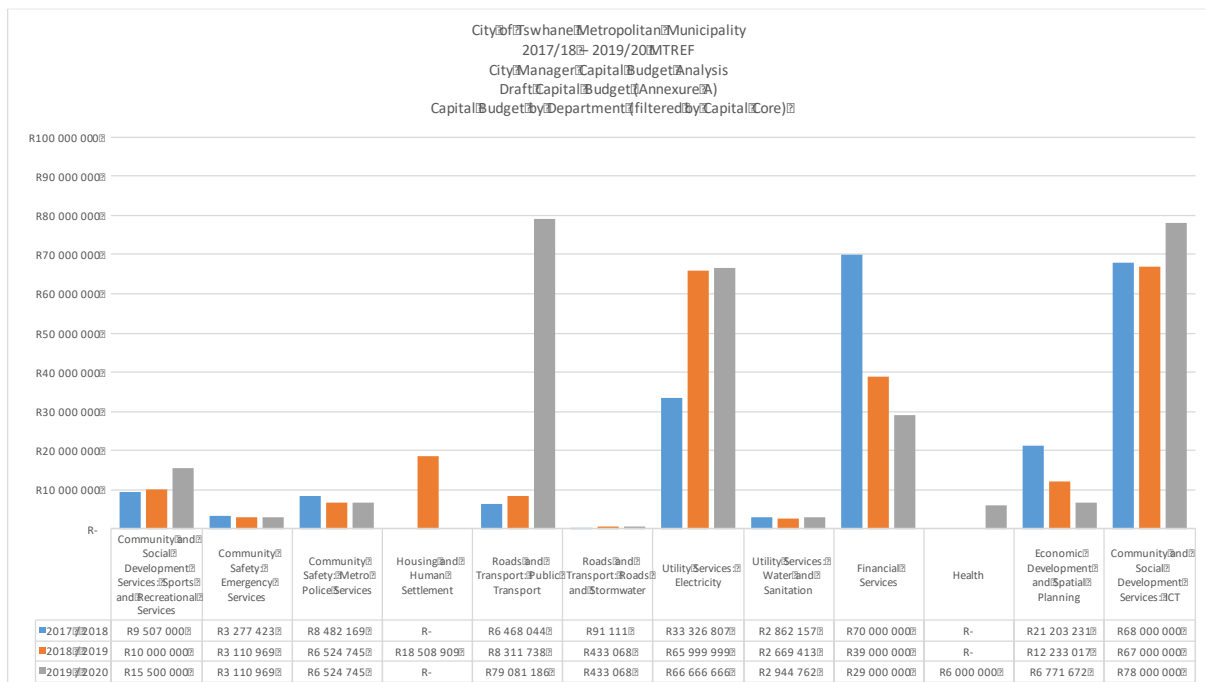
The MSDF metropolitan nodal capital analysis was undertaken by means of the Tshwane Capital Planning system (CaPS) (refer to Figure D-10), which allows for the spatial referencing of capital projects. The capital demand analysis of the 2017/18 MTREF Capital Budget by MSDF Capital Core (Primary Node) area is shown Figure D-11. The capital demand analysis of the MSDF metropolitan nodes (excluding the Capital Core (CBD)), is shown in Figure D-12.

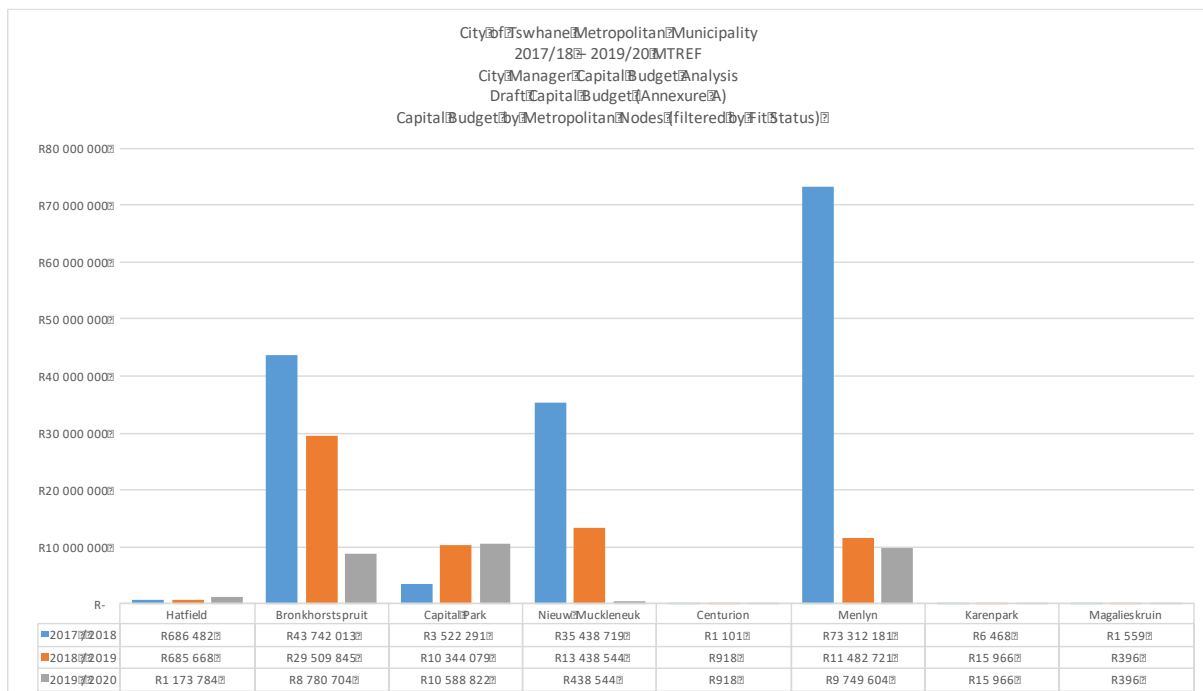
Figure D-10: City of Tshwane Metropolitan Nodes



Capital budget within the capital core of Tshwane amounts to approximately R223 million in 2017/18 financial year, which equates to approximately 6% of the total 2017/18 capital budget demand. Capital core demand increases in 2018/19 to R233 million and further increases to R294 million in 2019/20.

Figure D-11: 2017/18 MTREF Draft Capital Budget (Annexure A) MSDF Capital Core Analysis



**Figure D-12: 2017/18 MTREF Draft Capital Budget (Annexure A) MSDF Metropolitan Node Analysis**

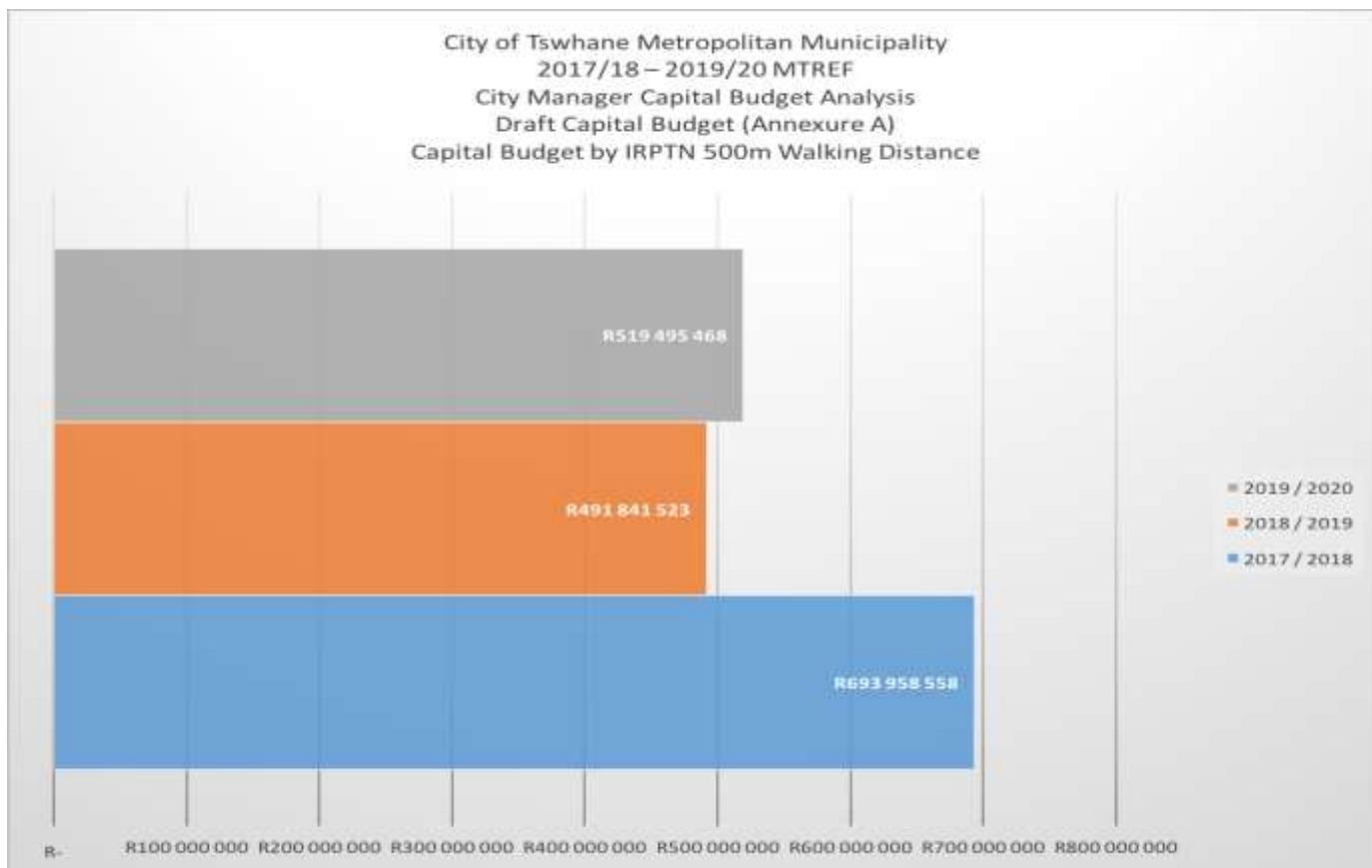
With respect to MSDF Metropolitan nodes, a R156 million is requested in metropolitan nodes throughout the city during 2017/18, which amounts to 4,1% of the total capital. The highest nodal expenditure is the Menlyn Node at R73 million during comprising of 46% of the total Metropolitan Nodes capital budget in the 2017/18 MTREF.

#### **D.1.5.6 Value of Capital in the IRPTN Phase 1 Development Catchment**

The implementation of the IRPTN network, as a spatial transformative urban element, serves to catalyse development through the increase of land-use intensity and development density within a 500m walkable development catchment, thereby bringing about land-value capture in terms of a potential rates base increase for the municipality. This 500m development catchment around the IRPTN Phase 1 has been define and a IRPTN Phase 1 development catchment budget analysis was undertaken by means of the Tshwane Capital Planning System (CAPS) (refer to Figure D-13). The capital budget analysis of the 2017/18 MTREF Capital Budget for the IRPTN 500m development catchment area is shown in Figure D-14.

From the analysis, it is evident that a significant amount of capital investment is occurring within the 500m IRPTN Phase 1 Development Catchment area in support of the Tshwane Rapid Transit (TRT) system. For the 2017/18 financial year, approximately R693 million (18%) is requested in this corridor and including R491 million (13%) and R519 million (12%) in 2018/19 and 2019/20 financial years respectively.

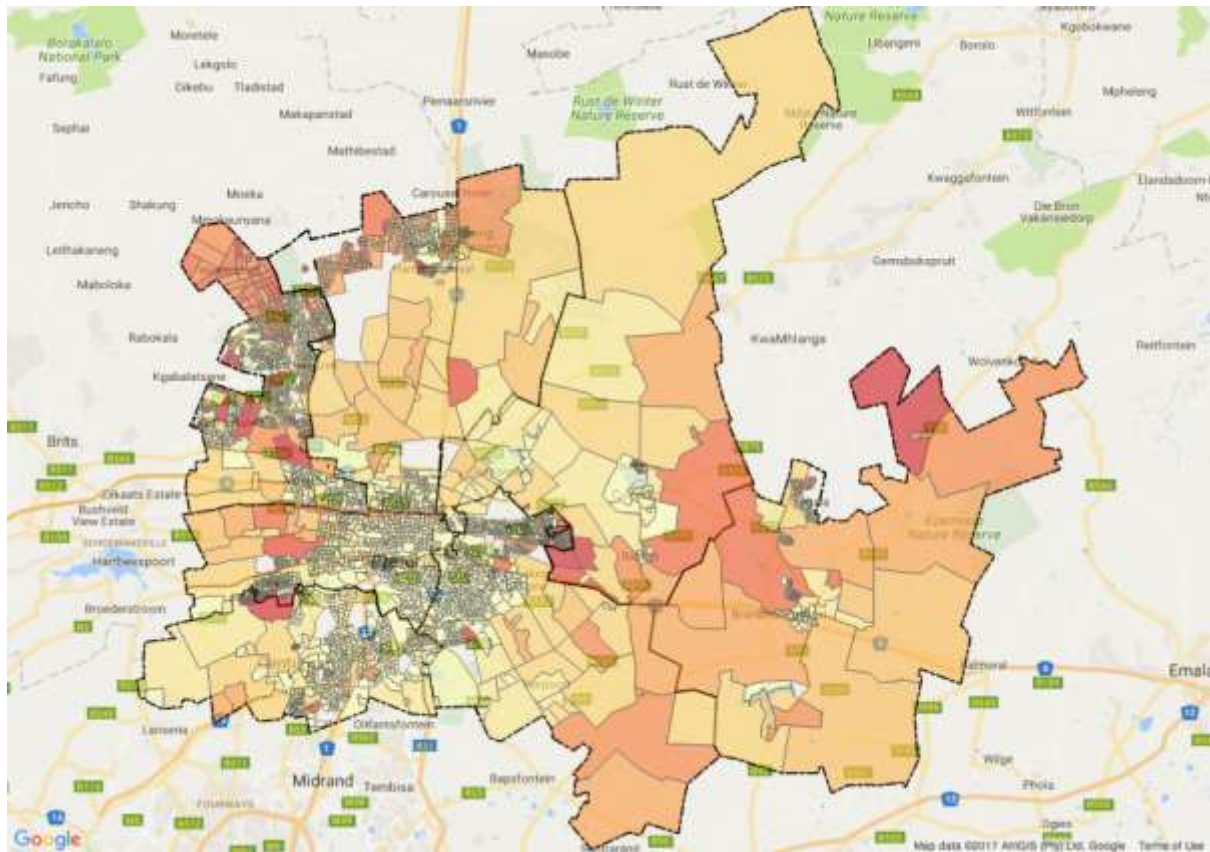




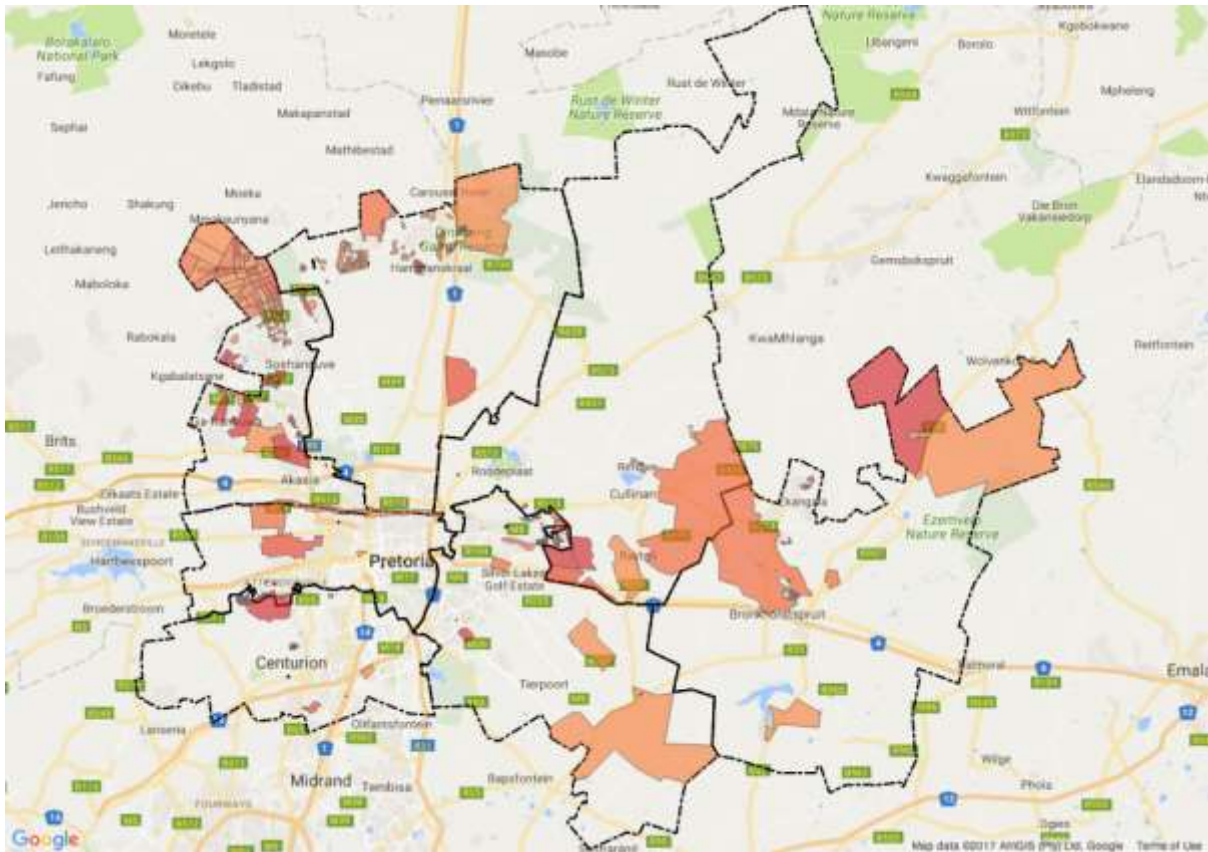
### **D.1.5.7 Value of Capital in the Pro-Poor Areas**

Capital expenditure in pro-poor areas is critical to redress service infrastructure backlogs and to eliminate barriers to social and economic development in these areas. A deprivation analysis was undertaken for the City of Tshwane using the StatsSA Census 2011 data on household income, dwelling type, household size, service backlogs and levels of service of various infrastructure services. A composite deprivation index was developed from these indicators by using a weighted average level of deprivation for each measurement criteria. The weightings of the contributing measurement criteria in relation to the composite deprivation index is available on request. The deprivation index can be expressed spatially as a heat map, where warmer colours (red) indicate greater levels of deprivation, whereas cooler colours (yellow) indicate lower levels of deprivation (refer to Figure D-15). Pro-poor areas were identified using the deprivation index for the City of Tshwane, as areas where the relative level of deprivation exceeded 50% of the analysis zone. Pro-poor expenditure areas are shown in Figure D-16.

**Figure D-15: City of Tshwane Deprivation Index (StatsSA Census 2011)**



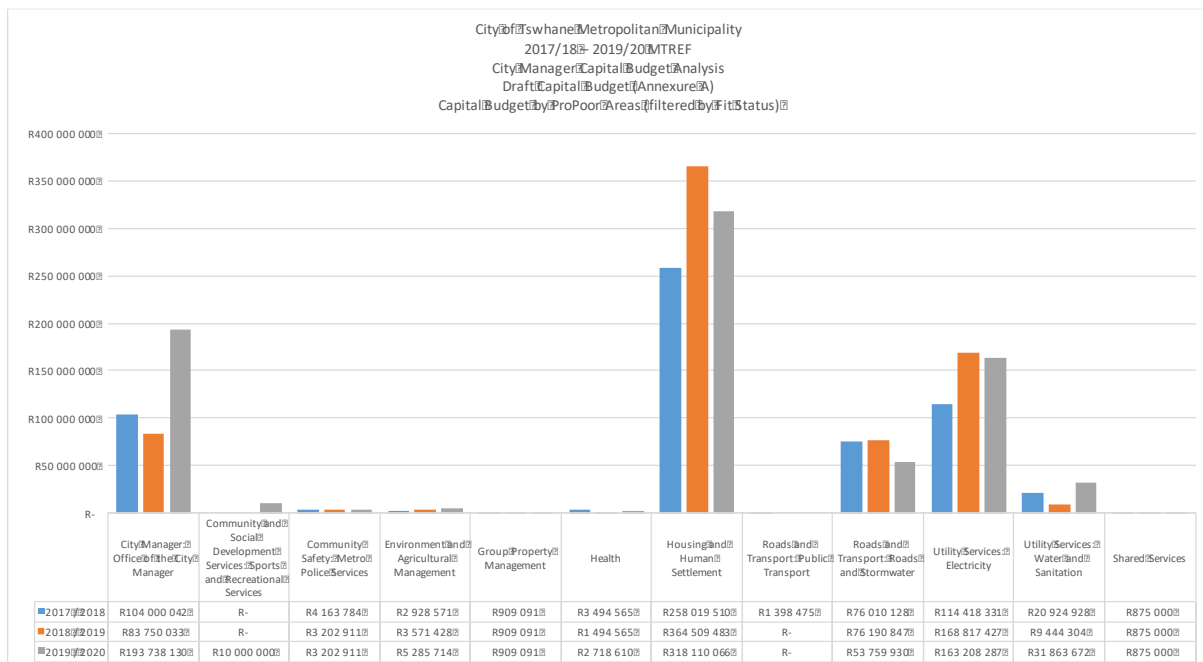
**Figure D-16: City of Tshwane Pro-Poor Expenditure Areas**



The analysis of the pro-poor areas, as a spatial transformative urban element, serves to redress backlogs and eliminate stumbling blocks to development. This pro-poor analysis was undertaken by means of the Tshwane Capital Planning System (CAPS). The capital budget analysis of the 2017/18 MTREF Capital Budget for the pro-poor areas is shown in Figure D-17 with the capital budget of each department within these areas.

With respect to Pro-poor areas, a R587 million is allocated to these areas during 2017/18, which amounts to 15% of the total capital budget. The department with the highest capital budget “expenditure” within these areas are Housing and Human Settlement followed by Utility Services and Roads and Transport, highlighting the focus of the city towards Basic Service delivery.



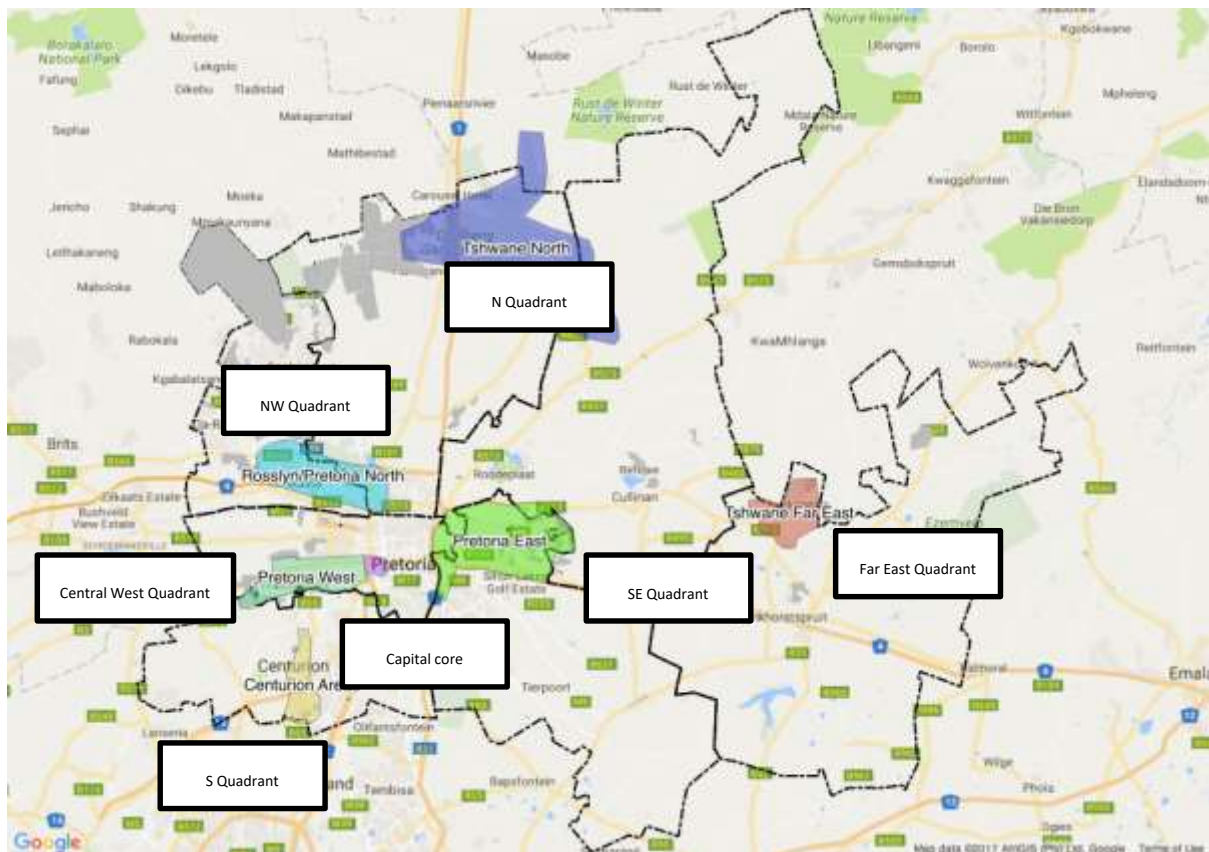
**Figure D-17: 2017/18 MTREF Draft Capital Budget (Annexure A) Pro-poor Area Analysis**

#### **D.1.5.8 Value of Capital Demand in Spatial Priority Intervention Areas**

During the Municipal Elections of 2016, the City of Tshwane came under new political leadership which was accompanied by refocussed strategies and objectives regarding the way in which the city will direct its expenditure. *The strategic planning areas as indicated in documents (i.e. MSDF, IDP etc.) of Tshwane will for the most, remain, for the simple reason that the realities of the City of Tshwane stay the same.* Impoverished areas are still where they are, and infrastructure backlog largely remains where they were during the submission of the 2016/17 capital budget. A strong focus on these realities will remain.

However, specific spatial strategic interventions have received attention by the new administration and a refocus on specific intervention areas identified in the MSDF were pronounced. These refocussed spatial priority intervention areas known as Priority Nodes & Corridors for Spatial Transformation are shown in Figure D-18.

**Figure D-18: Priority Nodes and Corridors for Spatial Transformation**



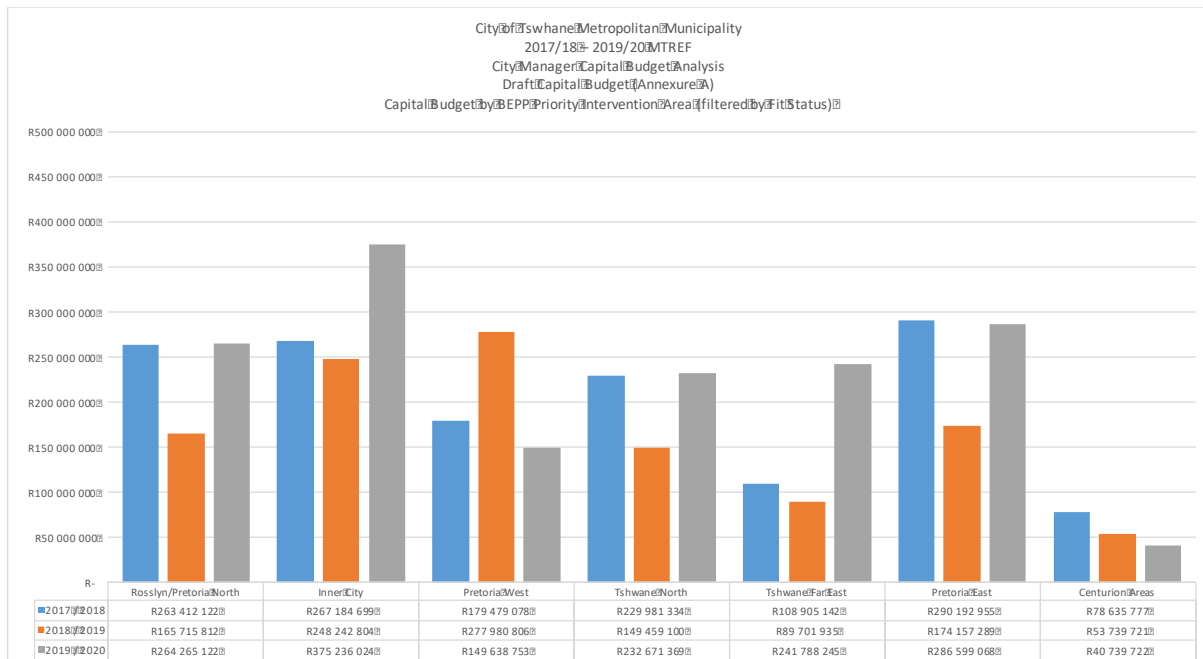
The Priority Nodes and Corridors for Spatial Transformation capex analysis was undertaken by means of the Tshwane Capital Planning system (CaPS), which allows for the spatial referencing of capital projects. The 2017/18 capital budget analysis of the Priority Nodes and Corridors for Spatial Transformation, is shown in Figure D-19.

2017/18 MTREF Capital budget within the Priority Nodes and Corridors for Spatial Transformation of Tshwane amounts to approximately R1,4 billion in 2017/18 financial year, which equates to approximately 37% of the total 2017/18 capital budget demand. MSDF spatial priority intervention areas capital expenditure decreases in 2018/19 to R1,1bn (30% of total capex budget in 2018/19) and then increases again to R1,5 in 2019/20 (36% of total capex budget in 2019/20).

In terms of specific spatial priority areas, most of the expenditure occur in the following priority areas:

- South Eastern Quadrant - Pretoria East accounts for 20,4% of the total capex expenditure earmarked for spatial priority intervention areas over the 2017/18 MTREF
- Capital Core - Inner City accounts for 18,8% of the total capex expenditure earmarked for spatial priority intervention areas over the 2017/18 MTREF
- North West Quadrant – Rosslyn / Pretoria North accounts for 18,5% of the total capex expenditure earmarked for spatial priority intervention areas over the 2017/18 MTREF

**Figure D-19: 2017/18 MTREF Draft Capital Budget (Annexure A) Priority Nodes and Corridors for Spatial Transformation Analysis**



#### D.1.6 2017/18 MTREF Draft Capital Budget (Annexure A) Asset Management

This table brings together the core financial elements of asset management and summarises the capital programme in terms of new assets and the renewal of existing assets. The objective is to provide a complete picture of the municipality's asset management strategy, indicating the resources being deployed for maintaining and renewing existing assets, as well as the extent of asset expansion.

**Table D-9: 2017/18 MTREF Draft Capital Budget (Annexure A) MSCOA Action Classifications**

Works Type	2017/2018	%	2018/2019	%	2019/2020	%
Existing	R1 270 893 139	32,9%	R1 237 371 252	32,4%	R1 848 452 997	41,9%
Renewal	R932 422 432	24,1%	R853 500 000	22,3%	R1 335 000 000	30,2%
Upgrading	R338 470 707	8,8%	R383 871 252	10,0%	R513 452 997	11,6%
New	R2 484 636 653	64,3%	R2 490 648 832	65,2%	R2 414 327 713	54,7%
Unassigned	R105 754 248	2,7%	R94 915 426	2,5%	R150 500 000	3,4%
<b>Grand Total</b>	<b>R3 861 284 040</b>	<b>100,0%</b>	<b>R3 822 935 510</b>	<b>100,0%</b>	<b>R4 413 280 710</b>	<b>100,0%</b>

Note: \* Unassigned items refers to projects which have not been classified according to the mSCOA project segment. These projects will be classified to reflect a more complete picture of the Asset Management expenditure profile of the city.

In terms of MFMA Circulars 55 and 66 at least 40% of the Capital Budget must be allocated towards renewal of existing assets. From the above table, it is evident that only approximately 32% of the budget has been allocated for the renewal of existing assets in the 2017/18 and 2018/19, and approximately 41% of the budget has been allocated to renewal of existing assets in 2019/20 financial year.

## **D.2 Investment Strategy**

The key to unlock the potential of the city is therefore twofold: firstly, to facilitate development (Public and Private) in an efficient manner and secondly to attract investors. The BEPP has shown that various public entities are investing in the city. It has also showed the spatial grouping of the known projects which enables effected parties in specific precincts or regions to converge and align implementation. Tshwane is in the ideal position to now approach effected stakeholders in these precincts to assist in developing liveable vibrant community spaces. This can only be possible when stakeholders take responsibility and lead from the front. Streamlined, integrated and aligned coordination is required to successfully develop liveable and desired spaces when an entity takes ownership of such a mechanism.

Given the spatial understanding of the influence various stakeholders has on a project level, it is possible to establish a mechanism where stakeholders involved could start to collaborate development of desired spaces which will then re-establish the core identity of the Capital City. This will only be able if the city takes the lead and take ownership initiating such a mechanism.

The BEPP has provided a platform from which such a mechanism could be launched. Interaction between government entities and the private investors and the precinct / project champion should take place with one main objective: *“How can we strengthen each other in creating the most desirable space in the city?”* The influence this main objective will have – especially when projects start to roll out – on the private sector will be extraordinary.

## **D.3 Institutional Arrangements and Operating Budget**

Refer to Institutional Arrangements and Operating Budget in section G.

## E Implementation

### E.1 Tshwane's Sustainable Human Settlements Plan

The primary objective of the Sustainable Human Settlement Plan is to assist the City in achieving the very important “step 1” of providing a sound strategic context to the issue of housing supply and demand, before getting to the specific objectives pertaining to the provision of turnkey solutions for rental housing, integrated mixed housing typology solutions, eradication of informal settlements/back yard shacks, etc. Objectives of the Sustainable Human Settlements Plan (SHSP) are summarised in Table E-1.

**Table E-1: Sustainable Human Settlements Plan Objectives and Outcomes**

SHSP Objectives	SHSP Outcomes	Points of Departure
To develop a comprehensive housing development and delivery plan for municipalities in Gauteng Department of Human Settlement providing strategic direction and guidance to the municipalities as to key housing delivery priorities and focus in terms of housing delivery in the Province.	To develop a single shared vision and housing delivery plan between various spheres of government role-players and stakeholders for the local municipality.	Provide strategic direction and guidance in terms of a single human settlement delivery plan for the local municipality.
To integrate the SHSP's into the Municipal Integrated Development Plans, and ensure that the SHSP becomes the housing component of the IDP.	Ensure integration of the Housing Delivery process with Provincial Departments and Local Authority initiatives. Ensure an understanding of and address the constraints within which Housing Delivery takes place at a Municipal Level. Supplement the IDP sector plans.	Provide for a single shared housing vision for the City of Tshwane. Ensure political and policy alignment. Establish a common understanding of housing delivery challenges and constraints.
To ensure that the SHSP's provide a consistent tool to evaluate proposals and applications at both a provincial and municipal level, through the development of a GIS based support system.	Provide a user friendly and accessible tool to all authorised users to manage and monitor housing delivery in the local municipality.	Explore and recommend tools to monitor and evaluate housing delivery on a Provincial and Municipal scale.
To establish a framework for housing delivery in terms of the National Housing Program and Gauteng Department of Human Settlement (GDHS) Strategic direction.	Ensure policy alignment at a National, Provincial and a Local level.	Ensure sustainable and spatially integrated housing delivery.
To provide both GDHS and municipalities with a tool to strategically locate future housing settlements, taking into consideration the constraints and opportunities that exist at a municipal level.	Ensure the establishment of sustainable housing developments and spatial integration and adherence to SPLUMA Principles.	Ensure relevance and effectiveness of housing delivery programs and products.
To identify key issues to be addressed.	Lessons Learnt and best practices regarding housing delivery in the Province. Assess effectiveness of Departmental programs and products delivery.	Provide a framework for incorporation of the SHSP's into the IDP Reviews in the form of an IDP Housing Chapter.

### **E.1.1 Human settlement demand**

Housing Demand focuses on quantifying demand in terms of the number of units required, and more specifically:

- a) The type of demand i.e. full ownership or rental units, as well as demand for subsidised units versus bonded housing; and
- b) Location, which could either be the existing urban areas, or the rural parts of the City.

Having determined the size, location and nature of demand, it is then necessary to determine and assess the physical resources available at the respective areas of demand. Physical Resources entails the assessment of availability of well-located and environmentally suitable land, and whether the land is public or privately owned. Well-located land is normally close to economic activity/job opportunities, infrastructure in the form of bulk engineering services (water, sanitation, electricity, roads and stormwater) is readily available, while access to social services and facilities (health, education, welfare, safety and security and sports and recreation) is also of critical importance in pursuance of sustainable development.

Institutional Resources include both government and the private sector. Government is responsible for the formulation of human settlement related legislation and policies, and it provides in the need for subsidised housing via a range of subsidy/housing programmes with human resources to oversee the implementation of these projects. Table E-2 below indicates the estimated housing backlog within the City.

**Table E-2: Housing Demand and Units**

DEMAND	UNITS/STRUCTURES
Informal Housing Counts	155 948 households (2013 stats)
Backyard Units	83 378 (2013 stats)
Demand Database/ Housing Needs Register	166 832 (2017 stats)

There is an estimated 155 948 informal structures in the City of Tshwane (2013 Survey). These informal structures exist in a total of 178 incidences/clusters of informal settlements. Since the 2013 counts, fourteen more informal settlements have been identified. Not all these units are “shacks” as many of the houses located in areas under traditional authorities are permanent in nature.

Backyard units were approximately 83 378 in 2013 and it can be assumed that the majority of these represent rental demand, and more specifically affordable rental.

### **E.1.2 Rural/marginalized settlements**

*Particular attention must be paid to rural densification in parts of the previous homelands, where rural settlements are growing rapidly in areas where access to land is possible and transport services are good. Population densities in these places are approaching those of urban areas, but the economic base and the infrastructure and governance arrangements to manage this change are lacking. – NDP*

The City is in the process of developing the Rural Settlement Strategy aimed at retaining the existing rural/ agricultural areas. Research will also be conducted to investigate implementation of different subsidies when settlements located in these areas are implemented.

#### **E.1.2.1 Agri-Village Establishment**

The focus on the establishment of specialised centres in the form of Agri-Villages in appropriate locations will specifically help to facilitate agrarian transformation and land reform as envisioned by the CRDP. Notably, such villages also aim at promoting food security.

The key to the success of Agri-Village development is rooted in the principle of focused and deliberate government investment spending to ensure that these centres develop to provide an extensive range of community facilities, and becoming the spatial focal points of agriculturally driven LED interventions and land reform initiatives. By doing so, an Agri-Village possess the inherent potential to act as a spatial point within a larger rural space- economy around which the critical mass required to initiate formal and informal local economic development can occur.

### **E.1.3 Alignment of residential developments with transport nodes**

*“Shifting settlement patterns should be investigated to align public investment in infrastructure and services with these trends, and to develop appropriate systems of land tenure and growth management. Special attention must be given to areas of densification along transport corridors within previous homelands”. – NDP*

Essentially, there are about 2482 hectares of land suitable for residential development within the functional area of the Tshwane IRPTN. This land holds potential for 198 577 residential units at an average density of 80 units per hectare. The capacity around railway stations amounts to 65 048 units and along the BRT routes it stands at 133 529 units. Based on the nature and character of surrounding areas which the network runs through, the development potential is estimated at 77 330 (39%) low income (subsidised rental full ownership) units, 57 357 (29%) middle income units and 63 890 (32%) high income units.

The nature of development varies between redevelopment (in old areas), densification (subdivision etc.), and infill development (on green fields sites), and the typical housing typologies to be developed comprise 2, 3 and 4 storey walk-up facilities.

Table E-3 shows the development potential per region and per income category. From this it is evident that the highest potential for low income development around the IRPTN is in Region 1 (36%), Region 3 (35%), and Region 6 with 17%.

**Table E-3: IRPTN: Developable Land (Stations and Lines) – Alternative Alignment by Region**

	Developable Area	Residential Area	Residential Units				Residential Units			
			High Income	Middle Income	Low Income	TOTAL	High Income	Middle Income	Low Income	TOTAL
IRPTN NETWORK	ha	ha								%
Region 1	640	470	3 759	5 842	27 987	37 588	6%	10%	36%	19%
Region 2	187	159	6 524	4 231	2 004	12 758	10%	7%	3%	6%
Region 3	1339	848	15 410	25 277	27 120	67 807	24%	44%	35%	34%
Region 4	509	381	16 306	10 150	4 049	30 505	26%	18%	5%	15%
Region 5	93	55	804	585	3 010	4 399	1%	1%	4%	2%
Region 6	711	569	21 087	11 271	13 160	45 519	33%	20%	17%	23%
Region 7	0	0	-	-	-	-	0%	0%	0%	0%
<b>TOTAL Alternative</b>	<b>3479</b>	<b>2482</b>	<b>63 890</b>	<b>57 357</b>	<b>77 330</b>	<b>198 577</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>%</b>			<b>32%</b>	<b>29%</b>	<b>39%</b>	<b>100%</b>				

Feasibility studies are currently conducted on the abovementioned land parcels to confirm the development potential. Privately owned portions have also been identified for acquiring and partnerships.

The Intervention Programme aimed at promoting higher density, mixed income (Inclusionary Housing) and mixed land use developments around the IRPTN and nodal network will also be considered. This Programme supports the following two objectives as reflected in the Tshwane Spatial Development Strategy:

- to provide as many affordable housing opportunities in central parts of the city as possible, according to the higher density affordable housing model;
- provision of institutional (social) housing (rental accommodation) in central areas.

The Intervention Programme essentially comprises the following three initiatives:

- Breaking New Ground/Inclusionary Housing
- Social Housing and Community Residential Units focusing on affordable rental stock
- Medium to higher density full ownership housing (fully subsidised walk-ups).









### ***E.1.5 Programme 1: Informal Settlements upgrade***

#### ***E.1.5.1 Categorisation of informal settlements***

The City has categorized the formalisation of informal settlements as follows:

a) Partially formalised

This category includes informal settlements where basic feasibility studies such as Geo-technical and Environmental screening, etc. have been conducted to confirm the develop-ability of the settlement. These studies will then inform the development of a layout plan for an in-situ upgrading or greenfield development. Households will be rearranged/relocated according to the draft layout plan while the formal town planning process is executed. In the meantime, rudimentary services will be provided until the planning process is completed.

b) Semi-formalised

The planning process for this category has been completed and approved with the General Plan approved by the Surveyor General. Households are already rearranged/relocated to stands, while services (i.e. water and sanitation, electrification, etc.) are installed according to the City's services standards.

c) Fully formalised

This category includes settlements where point b) above has been completed, townships proclaimed and title deeds ready for issuing to beneficiaries. A settlement will only be considered "formal" when all requirements in this category are met.

The following services are currently offered through the Formalisation Programme:

- Shack marking (done by Regions)
- Serviced stands (planning, water – stand pipe, sewer with outside toilet)
- Title deeds
- Electrification
- Waste bin (85 liters or 240 liters)
- Street names
- Rudimentary services (interim measure implemented through regions)

### ***E.1.6 National Upgrading Support Programme (NUSP)***

The National Upgrading Support Programme (NUSP) is an initiative of the National Department of Human Settlements (NDHS) aimed at improving the practice of informal settlement upgrading in the country. The Programme has four objectives:

- Promote incremental upgrading (where possible, in-situ) as a major complementary housing programme, in line with Part 3 of the National Housing Code
- Support the National Delivery Agreement target to improve basic infrastructure, services and land tenure for 400 000 informal settlement households by 2014
- Improve government's programmatic approach to upgrading, strengthening coordination with other sectors and partner
- Strengthen the capacity of government and professional practitioners to implement community-based incremental upgrading
- The Programme has three broad activity streams namely:
  - Provision of technical assistance to provinces and municipalities for the development and implementation of upgrading programmes and projects
  - Capacity building and training to practitioners and community members in the field of informal settlement upgrading
  - Knowledge services and information dissemination to the upgrading community of practice

One of the NUSP's main activity streams is to support municipalities in developing robust project plans in line with the targets and direction contained in the National Delivery Agreement, the July 2011 Cabinet Lekgotla decision, and the agreement between the National Department of Human Settlements and the Department of Programme Monitoring & Evaluation in the Presidency.

City of Tshwane also benefitted from the National Upgrading Support Programme. The purpose of the assignment was for National Department of Human Settlements to appoint a Service Provider to work alongside City of Tshwane officials to develop an informal settlement upgrading policy and strategy, and to produce detailed project plans for the incremental upgrading of a selected number of informal settlements.

Thirty (30) informal settlements were identified and assessed by the Service Provider based on their location, status of the informal settlement, etc. Not all met the NUSP criteria for the in-situ upgrading due to many factors such as the location, geological and environmental conditions, etc. Only sixteen (16) out of the thirty (30) identified qualified for the detailed assessment. They include the following settlements as indicated in Table E-4.

**Table E-4: List of NUSP Informal Settlements**

<b>Name of Informal Settlement</b>	<b>Region</b>
Portion 27 and 28 Hatherly	6
Portion 1 Hatherly	6
Kanana	6
Mahube Valley Ext 2	6

Name of Informal Settlement	Region
Mahube Valley Ext 15 (Stoffel Park)	6
Mamelodi Ext 10 Phase 2	6
Mamelodi Phase 1	6
Mamelodi Phase 3 and Mountain View	6
Nellmapius Ext 6	6
Phomolong (Transnet and Erf 34041)	6
Pienaarspoort (Plot 45)	6
Sekampaneng A	2
Sekampaneng V	2
Soutpan	2
Botshabelo Res	1
Donkerhoek	5

These projects are currently in different planning stages. Upgrading strategies together with Development Plans were developed and the City is currently implementing them. The Formalisation Strategy was also developed to guide the implementation of these projects. The Strategy is currently in the process of being reviewed to accommodate all informal settlements and provide guidance on new challenges facing the City.

#### ***E.1.6.1 Programme 2: Affordable Rental Housing***

Social housing is generally a medium-density rental housing type which makes a strong contribution to social integration and urban restructuring. Social housing may be developed as a greenfield development, but could also be applied as conversion or refurbishment of vacant buildings and infill (brownfield) development.

The proposed definition of social housing at the national level is:

*“a rental or co-operative housing option for low income persons that is provided by accredited social housing institutions or in accredited social housing projects in designated restructuring areas” (NDoH, November 2004)*

The Institutional Housing Subsidy, as provided through the Housing Subsidy Scheme, can be used for the development of social housing. Local authorities are by law prohibited to obtain this subsidy, and social housing is therefore being developed by independent Social Housing Institutions (SHIs), preferably Section 21 companies. However, there is a large difference between the available subsidy amount and development costs, which is directly translated into the rental price which in certain situations could make this housing option unaffordable for the target group.

The City of Tshwane sees social housing as an important housing delivery option, especially in terms of inner city regeneration. All social housing projects this far have been developed in the inner city. The municipality has two purposes for social housing:

- i. Providing housing for the specific niche market, which can be defined as the top end of the lower income category (<R3500) and the middle-income category (R3500-R7000), in order to address 15% of the total housing backlog in the long term.
- ii. Normalising the housing environment by transferring local authority rental stock to SHIs.

There are eight (8) Social Housing Institutions (SHIs) active in Tshwane:

1. Housing Company Tshwane (HCT)
2. Yeast City Housing (YCH)
3. Africa Lemuel Properties
4. Namapendlo Social Housing Institution NPC
5. Urbanscape Development Pty Ltd
6. Amasu Properties Pty Ltd
7. THH Riet 2 Pty Ltd
8. Toro ya Africa

**Table E-5: Social Housing Projects in Construction Phase**

Social Housing Institution	Project Name	Total Number of Units	Deliverable for 17/18
Housing Company Tshwane (HCT)	Townlands	1200	400 Units
Housing Company Tshwane (HCT)	Chantelle x39	1079	Bulk Infrastructure upgrade.
Yeast City Housing (YCH)	Thembelihle Village	734	241 Units
THH Riet 2 Pty Ltd	Akasia Place Project	475	nits

### ***E.1.7 Social housing project planning***

Social housing delivery must be responsive to the local housing demand. It is the aim to accommodate about 15% of the backlog in social housing projects. Based on this estimation there is a potential market for 20 071 units in City of Tshwane.

The following three elements of integrated development need to be considered with regard to social housing (National Social Housing Policy, draft July 2003):

1. Physical and spatial integration of social housing developments is required to ensure that the housing stock is well located within urban and inner city areas. This will provide residents with easy access to inter alia transportation and transport routes, amenities and facilities, and thereby contributing to quality of life of the residents. Co-operation and communication between all departments is required to facilitate this.
2. Social integration should also be promoted through ensuring that SHIs do not discriminate in any way against residents, and adhere to the provision of the Rental Act (Act 50 of 1999). SHIs can also be effective in creation of a culture, which supports the norms necessary for sustainable development and growth. Mixed communities, as well as mixed land use development form part of social integration, as this mirrors systems and processes in operation in urban and inner city areas. SHIs therefore require some flexibility within their housing project developments to be able to respond to local demand.

**Table E-6: Social Housing Projects in Planning Phase**

Social Housing Institution	Project Name	Total Number of Units	Deliverable for 17/18
Housing Company Tshwane (HCT)	Timberlands	574	Town Planning & Detail Design Approval.
Housing Company Tshwane (HCT)	Sunnyside	264	Town Planning & Detail Design Approval.
Urbanscape Development Pty Ltd	Upstream Development	368	Town Planning & Detail Design Approval.
Amasu Properties Pty Ltd	Bontle Gold View Estate	690	Town Planning & Detail Design Approval.
Toro ya Africa	Garankuwa x9		Town Planning & Detail Design Approval.

***E.1.7.1 Community Residential units***

The need for affordable rental housing is witnessed by the large number of households and individuals who currently rent overcrowded and sub-standard but inexpensive accommodation in backyards and informal settlements. Both the Social Housing and the Institutional Subsidy Programmes do not provide rental accommodation affordable to the very poor (and often informally employed) because of the high cost of multi-level units (and facilities provided) and the resultant high rental charges. Likewise, there is a need for a programme that will support the upgrading of government owned communal rental accommodation (hostels).

Hence, the Community Residential Units Programme (CRU) aims to facilitate the provision of secure, stable rental tenure for lower income persons/households. The Programme provides a coherent framework for dealing with the many different forms of existing public sector residential accommodation.

These Community Residential Units will no longer be implemented as the only tenure option for hostels redevelopment. The City is now shifting from that approach to a mixed integrated human settlement approach where it will be mixed with other tenure options such as bonded, gap and fully subsidised. In that way, none-qualifiers currently occupying hostels and the neighbouring communities will also benefit from the development. Town planning process are already underway to implement this new approach at the Mamelodi and Saulsville hostels.



**Table E-7: Number of Housing Projects in Planning Phase**

Project Name	Total Number of Units	Deliverable for 17/18
Saulsville Hostel	To be determined by final layout	Town Planning & Detail Design Approval.
Mamelodi Hostel	To be determined by final layout	Town Planning & Detail Design Approval.
Kingsley Hostel	To be determined by final layout	Town Planning & Detail Design Approval.
Zithobeni Hostel	To be determined by final layout	Town Planning & Detail Design Approval.

### **E.1.8 Community Facilities and Services**

All new human settlements in the City of Tshwane will be equipped with a basic range of community facilities to serve residents or should be in areas where people can share community facilities with surrounding areas. Apart from top structures and engineering services, the provision of community facilities is a critical element towards establishing sustainable human settlements. The City has a small fund at its disposal to annually provide some basic social infrastructure in human settlements.

However, the majority part of community facilities for new residential areas are to be provided by other departments like Education (schools), Health (clinics/hospitals), Police, Safety and Security (Emergency Centres), Welfare (Payout Points), and Transport (Bus/Taxi Modal Transfer facilities).

*A key difference between a subsidised settlement and a sustainable neighbourhood is the extent to which residents can access basic services and facilities within their neighbourhood. Although zoned commercial, retail and social services sites may remain vacant, and informal retail stores, nodes and strips often develop, at first informally and then over time more formally. - SA Cities Network: 2014*

It is important that the City regularly inform all these roleplayers of its priority human settlement projects and the associated demand for new social facilities. This will ensure that the implementation programmes of these departments are also aligned with the Human Settlement Multi Year.

*Public works programmes should be tailored to community building and local needs in at least four broad areas: a) the economy of social care, b) green infrastructure, c) cultural services, and d) public facilities such as schools, clinics, roads, parks, community centres and libraries. - NDP*

Table E-8 shows the standards as contained in the Red Book which should be used as point of departure to discussions pertaining to the provision of community facilities in human settlements in the City. Alternatively, the Department may use the guidelines developed by the CSIR during 2012.

Table E-8: Standards for Provision of Community Facilities (Source: Red Book)

Type of Facility	Land Use	Location	Maximum Travel Time	Minimum Stand Size	Minimum Population Threshold
Educational	Crèche/ Nursery	Within walking distance of communities or clustered with other community facilities	10 min or 750m walking distance	130m <sup>2</sup>	1 per 5000 population
	Primary School	Within easy reach of local areas or clustered with other facilities	20 min or 1,5km walking distance	2,4ha	1 per 3000 – 4000 population
	High School	On major transport route with public stops	30 minutes or 2,25km walking distance	4,6ha	1 per 6000 – 10000 population
	Tertiary Facility	On major transport routes with public transport stops	Depending on the regional scale of the facility needed in terms of development frameworks		
Health	Mobile Clinic (where no fixed facility is established)	No fixed location	Accessible by foot or 1km walking distance	Self-contained unit	1 per 5000 population
	Clinic	Close to public transport stops for easy access to the greatest number of residents	30 min or 2km walking distance	0,1ha per 5000 population	1 per 5000 population
	Hospitals	On major transport routes with public transport stops	Depending on the regional scale of the facility needed in terms of development frameworks		
Recreation	Parks	Evenly distributed throughout settlement	10 min or 500m walking distance (larger parks) 10 min or 300m walking distance (smaller parks)	6ha– 10ha (larger parks) 450m <sup>2</sup> – 1000m <sup>2</sup> (smaller parks)	varies
	Sports fields	Within clusters of schools or close to private clubs to avoid underutilisation or close to public transport services	300m walking distance and 500m -1500m walking distance from other user groups	Varies according to the need of the sport	varies
Cultural	Library	On major transport routes with public transport stops	20min – 30min or 1,5km – 2,25km walking distance	130m <sup>2</sup>	1 per 5000 – 50000 population

Type of Facility	Land Use	Location	Maximum Travel Time	Minimum Stand Size	Minimum Population Threshold
	Community centres	On major transport routes with public transport stops	20min – 30min or 1,5km – 2,25km walking distance	5000m <sup>2</sup>	1 per 10000 population
	Religious centres	Will depend on community that it serves or clustered with other public facilities such as playgrounds or community centres	20min or 1,5km walking distance	150m <sup>2</sup> – 3000m <sup>2</sup>	1 per 2000 population
Administrative	Municipal pay point	High level exposure and must be easily accessible by public transport	30 minutes by public transport	3000m <sup>2</sup>	1 per 50000 population
	Post Office	Along activity spines with easy access from public transport	30min – 40min or 2km walking distance	500m <sup>2</sup>	1 per 11000 population
	Police Station	Central to the community it serves	20min or 1,5km walking distance	0,1ha – 1ha depending on facility needed	1 per 25000 population
	Fire Station	On high order roads that intersect with primary or regional distributors	Regular access to it not required due to the nature of the facility	1,2ha	1 per 60000 population
	Children's Home	Regional facility to be provided in terms of a development framework based on statistics regarding homeless children		2ha	1 per 200000
	Community Information Centres	Easily accessible to whole community, visible and on busier road intersections	15min or 1km walking distance	Max building size of 100m <sup>2</sup>	1 per 22000 population

Although the above table provides guidelines for the provision of public facilities, the type of development and the needs of the community it is planned for, will eventually determine the number and size of the public facilities to be provided.

The importance of promoting integration, sustainability and spatial coherence cannot be overstated. As indicated previously, whereas the DoHS grant funding mandate is primarily focused on housing, infrastructure and tenure, there are two factors which put it in an enabling position in this regard:

- Its overall mandate is 'human settlements' which are always defined as consisting of more than just housing and basic infrastructural services;
- It can and does provide funding for the preparation and planning of projects.

## **E.2 Procurement Approach**

### ***E.2.1 Financial Sector Charter: Funding Model***

During 2005 the National Government entered into a Memorandum of Understanding with the Banking Association of South Africa to “facilitate the creation of properly functioning housing markets in previously under-served areas and to make home loan finance available and accessible to those previously denied access” and “facilitate the implementation of the housing and other relevant sections of the Financial Sector Charter (FSC) which enhances and contributes to the development of sustainable human settlements”. Clause 9 of the Charter stipulates that Financial Institutions commit themselves to working in partnership with Government to mobilise resources for empowerment financing. The Charter identifies families with stable household incomes between R1 500 and R7 500 (plus CPIX from 2004) as the target segment for low income housing finance.

During 2005 the National Minister of Housing also issued a policy directive entitled “Breaking New Ground”. This new policy is aimed at improving the sustainability of urban development for low income households and affording such households access to social infrastructure and economic opportunity. Subsequently, towards the end of 2005, the Minister entered into a formal social contract with key private sector participants within the housing industry. Under the Social Contract each signatory committed its organization or members to “breaking new ground” in housing delivery. The Social Contract envisages that Breaking New Ground will be achieved by key stakeholders working collectively to achieve economic growth and housing for all by 2014. The City of Tshwane aims to facilitate the housing delivery process and not to compete with the private sector in this process.

To promote projects that accord with the Financial Sector Charter and the Breaking New Ground policy directive, thereby attracting private sector investment and capacity to the City of Tshwane, the Municipality intends to address various constraints within the current housing environment, ensuring that its townships of the future are sustainable and that home ownership can be leveraged by the poor to generally improve their economic position and break the spiral of poverty.

The Financial Sector Charter and the Breaking New Ground policy of National Housing both seek to address a wider housing market than the traditional low income subsidy bands. These national initiatives aim at extending large scale housing delivery to households in the income bracket R3 500 to R7 500 (plus CPIX since 2004), the intermediate (finance linked) income market, and at integrating housing delivery across the entire low and intermediate income categories. Mixed income, tenure and typology projects are encouraged and the natural development of vibrant secondary housing markets is anticipated.

To encourage normalisation of low and intermediate income housing markets and the ability of low and intermediate income households to gear housing assets for increased economic participation, it is necessary that subsidy and support by all spheres of government for first time home ownership should be phased out as household income increases, rather than the sudden drop off at the R3 500 per month threshold.

In order to facilitate development for low and intermediate (finance linked) income housing, Council could consider adopting the following approach pertaining to contributions towards the cost of development:

- a) The City of Tshwane makes the project land available to the Selected Developer at the prices/discounts;
- b) The City of Tshwane, after securing agreement with Provincial Department of Housing in terms of the National Housing Subsidy Scheme, makes capital subsidies (current maximum quantum = R36 520.00 per stand, plus 15% geotechnical allowance as may be approved) available to be applied to such a development;
- c) The Selected Developer implements all development except for those functions assigned to the City of Tshwane.
- d) A Housing Company registered with the Registrar of Social Housing Institutions, applies for institutional housing subsidies and implements development in terms of the institutional housing subsidies allocated to the project.
- e) The City of Tshwane contributes the following amounts per stand, in the income ranges indicated, as top-up funding for internal civil engineering services;
  - i. R0 to R3500\*
    - Amount R8000.00\*\*, with drawdowns as per National Housing Code
  - ii. R3500 to R4500\*
    - Amount R6000.00\*\*, due on approved hand over of internal services
  - iii. R4500 to R5500\*
    - Amount R4000.00\*\*, due on approved hand over of internal services
  - iv. R5500 to R6500\*
    - Amount R2000.00\*\*, due on approved hand over of internal services
  - v. R6500 to R7500\*

- Amount R1000.00\*\*, due on approved hand over of internal services
- vi. Above R7500\* - no contribution
- *\*Income ranges, as may be adjusted in terms of any amendment to the National Housing Subsidy Scheme and/or the Financial Sector Charter.*
  - *\*\* Valid for the 2007 financial year. CPIX is to be added annually from the 2008 financial year onwards.*
- f) The City of Tshwane contributes the following amounts per stand, in the income ranges indicated, as top-up funding for electrical engineering services:
- i. R0 to R3500\*
- Amount R2200.00\*\*
- ii. R3500 to R4500\*
- Amount R1760.00\*\*
- iii. R4500 to R5500\*
- Amount R1320.00\*\*
- iv. R5500 to R6500\*
- Amount R880.00\*\*
- v. R6500 to R7500\*
- Amount R440.00\*\*
- vi. Above R7500\* - no contribution
- *\*Income ranges, as may be adjusted in terms of any amendment to the National Housing Subsidy Scheme and/or the Financial Sector Charter.*
  - *\*\* Valid for the 2007 financial year. CPIX is to be added annually from the 2008 financial year onwards.*
- g) The City of Tshwane applies to the Department of Mineral and Energy Affairs for electrical subsidies associated with low and intermediate income (finance linked) housing. The current quantum of electrical subsidy from DME = R3 100.00 per residential stand.
- h) The City of Tshwane reserves the option to design and install the electrical services itself or to include this work into a turn-key contract with the Selected Developer.

- i) In the event that the City of Tshwane chooses to design and install the electrical services itself, the City of Tshwane shall recover the cost of the installation per stand for all stands which are not utilised for low and intermediate income housing from the Selected Developer. The current cost of installation is R5300.00 per stand.
- j) The City of Tshwane retains responsibility for the cost of the external engineering services associated with the development, being those services required for the development to which no direct service connection or access is made.
- k) The Selected Developer implements all external services dedicated to such developments.
- l) The City of Tshwane implements all external services shared between developments;
- m) The City of Tshwane applies for Municipal Infrastructure Grants in respect of the project and applies same to its obligations in respect of (j) above.
- n) The City of Tshwane grants the following rebates in the prescribed external service contribution charges in view of the strategic nature of such developments:
  - i. R0 to R3500                      100 percent
  - ii. R3500 to R4500                80 percent
  - iii. R4500 to R5500               60 percent
  - iv. R5500 to R6500                40 percent
  - v. R6500 to R7500                 20 percent
  - vi. Above R7500                    No rebate
  - \*Income ranges, as may be adjusted in terms of any amendment to the National Housing Subsidy Scheme and/or the Financial Sector Charter.

(o) For the avoidance of misinterpretation, the net effect of (j) to (n) above shall be:

	Income range	Rebate	Municipality to pay*	Developer to pay
i.	R0 to R3500	100%	100%	0%
ii.	R3500 to R4500	80%	80%	20%
iii.	R4500 to R5500	60%	60%	40%
iv.	R5500 to R6500	40%	40%	60%

v.	R6500 to R7500	20%	20%	80%
vi.	Above R7500	No rebate	0%	100%

\*MIG conditional grants and City of Tshwane counter-funding in accordance with the standard policy of the City of Tshwane, the cost of any external services provided by the Selected Developer will be credited against external service contribution charges due in accordance with (n) above.

**E.3 Institutional arrangements and Operating Budget**

Refer to Institutional Arrangements and Operating Budget in section G.



## **F Urban Management**

### **F.1 Urban Management Strategy**

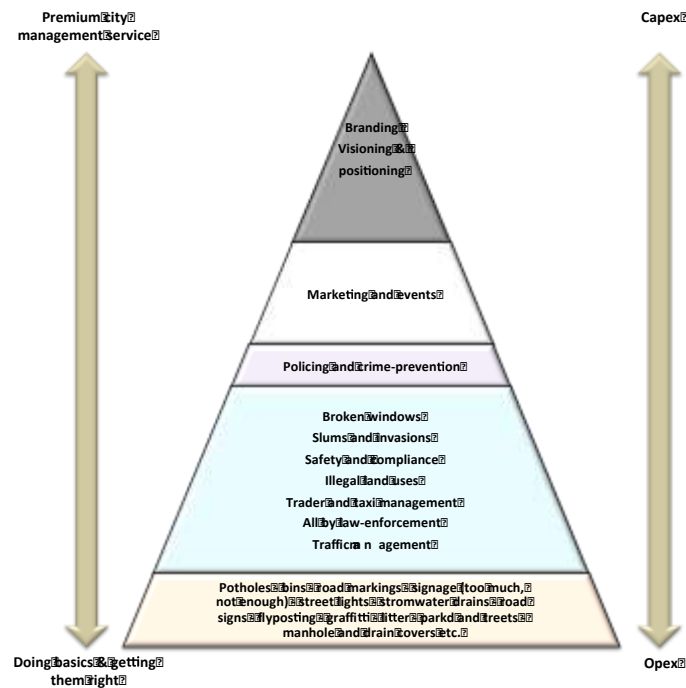
- Precinct management approach for Integration Zone precincts and Growth Nodes.
- Key land use management interventions
- Private sector investment approach, including the alignment and restructuring proposals for incentives

Urban Management covers a range of issues from the maintenance of infrastructure, public buildings and spaces through to policing and marketing. The base objectives of urban management are to maintain public capital investments and to enforce basic rules of public life, with the ultimate objectives relating to the contribution to an improved quality of life that effective urban management might bring to residents and other users of the space under management (Pernegger & Godehart, 2007). Figure F-1 illustrates a structure of urban management explored in various municipalities.

The bottom level of urban management consists of simple maintenance issues such as cleaning of storm water channels, fixing potholes and removing litter. The second level deals with the enforcement of by-laws such as illegal dumping and informal trading. The third level is about policing and crime prevention. The highest levels are concerned with place, marketing the managed area to outsiders.

As one moves from 'getting the basics right' to offering 'a premium service', it is likely that operational budgets will require augmentation of capital items and would require the establishment of partnerships with the private sector, as explored above.

Figure F-1: Structure for Urban Management



### F.1.1 Funding Urban Management

Four strategies may be considered to secure the resources needed for improved management:

#### F.1.1.1 Strategy 1: Obtain value for money and efficiency gains

A starting point for this type of strategy is to identify areas where public urban management resources are being wasted or where losses are being incurred.

#### F.1.1.2 Strategy 2: Increase the allocation of public resources

This strategy is complementary to strategy 1. It aims to seek secure increased resource allocation to urban management functions. In this case, it may be considered to ring fence funds for the node areas.

#### F.1.1.3 Strategy 3: Capture complementary revenue streams

A third mechanism for securing additional resources is to use public assets to generate revenue streams, which in turn are used to fund supplementary urban management activities. In strategies of this type, sustainable revenue streams are generated by the development of local public assets, such as the leasing of public land or facilities. All or part of this revenue can subsequently be allocated to improve urban management activities (Urban Land Mark, 2009) – it should, however, be ensured that these funds are appropriately ring fenced.

#### ***F.1.1.4 Strategy 4: Mobilise urban management partnerships***

In this approach, the resources of actors in the private sector, nongovernmental organisations and community groups are mobilized into effective area-based public management partnerships.

Urban management partners that are typically mobilised include:

- Property owners,
- Informal traders (contracting with traders associations or cooperatives to provide security cleaning, security and management services for informal markets)
- Small businesses (formal/informal agreements to provide security and cleaning services for a precinct)
- Taxi operators (contract with taxi associations to provide management and security services for taxi ranks)
- Sports clubs (sport clubs provide maintenance service in turn for user rights)
- Community groupings
- Church or religious groups

In this case, it can additionally be considered to outsource urban management functions to the private sector, cooperatives and community based organisations. Improvement districts are typically considered in this instance, however, given the strong residential character of most of Tshwane this mechanism may not be appropriate and may need to be hybridised into a social/community organisation that is supported by the private sector through corporate social investment. With consideration of these complexities, it is recommended that a policy/framework to address urban management within the nodes be established. The framework should also be area specific, due to the diversity in Tshwane.

## **F.2 Strengthening alignment of public transport and housing plans**

### ***F.2.1 Overview***

The City of Tshwane's (CoT) Integrated Rapid Public Transport Network (IRPTN) refers to the rapid component of its overall Integrated Public Transport Network (ITPN). Whilst the ITPN covers all transport routes and modes (including rail, bus, minibus-taxis, metered taxis and non-motorised transport) the IRPTN covers the heavy rail (metro rail), rapid rail (Gautrain), Light Rail Transit (LRT), Bus Rapid Transit (BRT) and Quality Bus Services (QBS).

The City's IRPTN Operational Plan was prepared in 2014 for a period of 25 years (taking it up to the year 2037). The purpose of the plan is to provide the City with a strategy pertaining to the proposed future status of the rapid transit component of the City's integrated public transport network. Whilst the plan principally conveys detailed information on the routes identified as suitable for rapid transit, it also addresses aspects such as phasing of the routes, mode specification, station locations, types and sizes, operational parameters, guidelines for implementation, associated and supportive land-use planning and cost estimations. For the purposes of this report, the focus will be on the identified routes, modes, stations and phasing contained within the IRPTN. It is important to note that since the preparation of the 2014 report, there have been some changes to the IRPTN route, in relation to the alignment of some of the A Re Yeng Tshwane Rapid Transit (TRT) routes, as well as the introduction of a Bus Rapid Transit (BRT) Light service on some of the planned TRT routes. Details on these changes can be found in the CoT 2016-2028 A Re Yeng Operational Plan of October 2016; they are discussed in brief in section F.2.4 of this chapter.

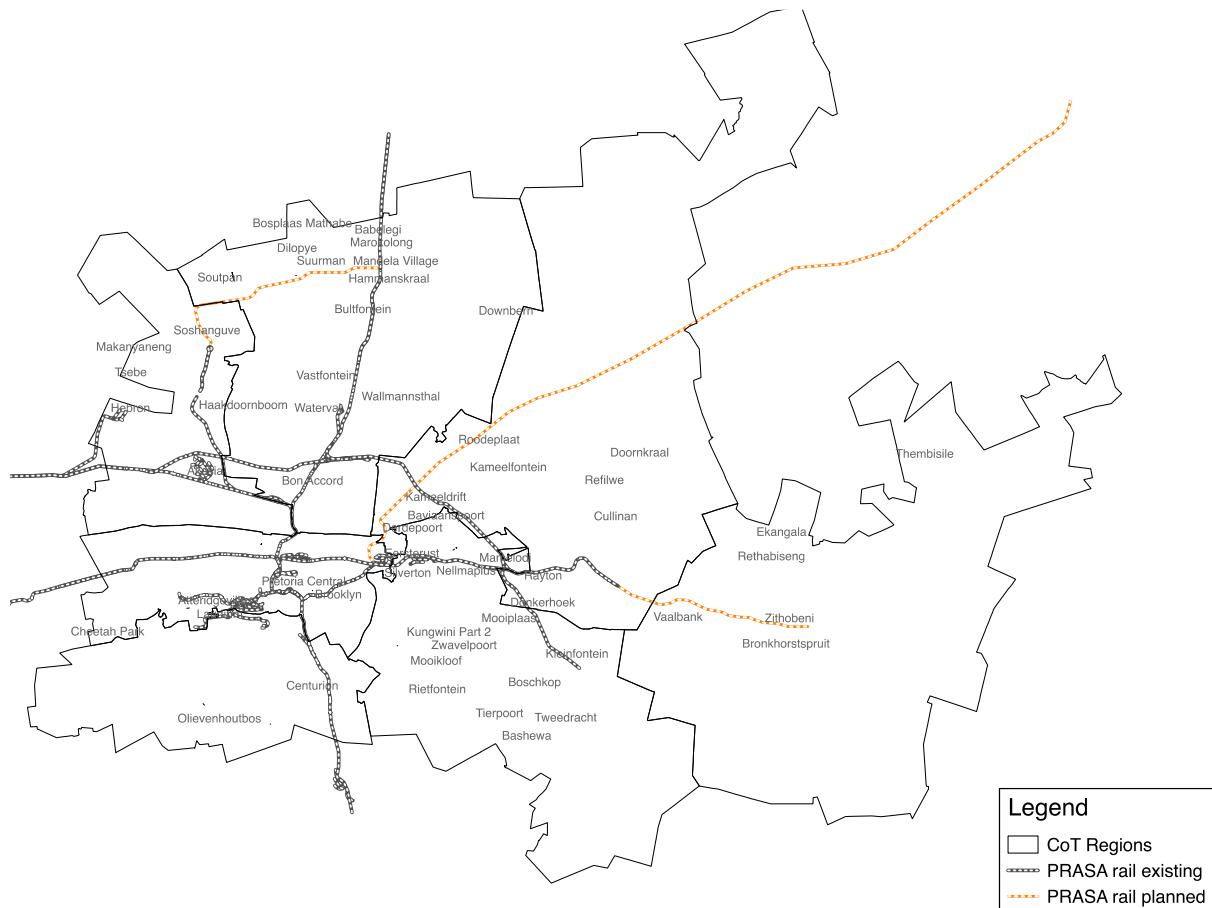
The future planning process of IRPTN considered several factors using information available at the time. However, since then new studies have been completed which may have some impact on the IRPTN plan. These include the CoT's Sustainable Human Settlement Plan, completed in late 2014, and the Urban Simulation in support of the CoT's Vision 2030, undertaken by the CSIR and made available in August 2016. This chapter will present the latest Sustainable Human Settlement Plan and the CSIR's Urban Simulation findings, in relation to the latest available IRPTN, with a view of determining how the IRPTN will connect the future residential areas with job opportunities in the City. It will also highlight any gaps in this connectivity, with recommendations on where additional future transport links should be provided.

### ***F.2.2 Heavy Rail (Metro Rail)***

The Metro Rail service is owned and operated by Passenger Rail Agency South Africa (PRASA). The CoT and PRASA agreed on the principle that rail would form the backbone of the IRPTN; any future network

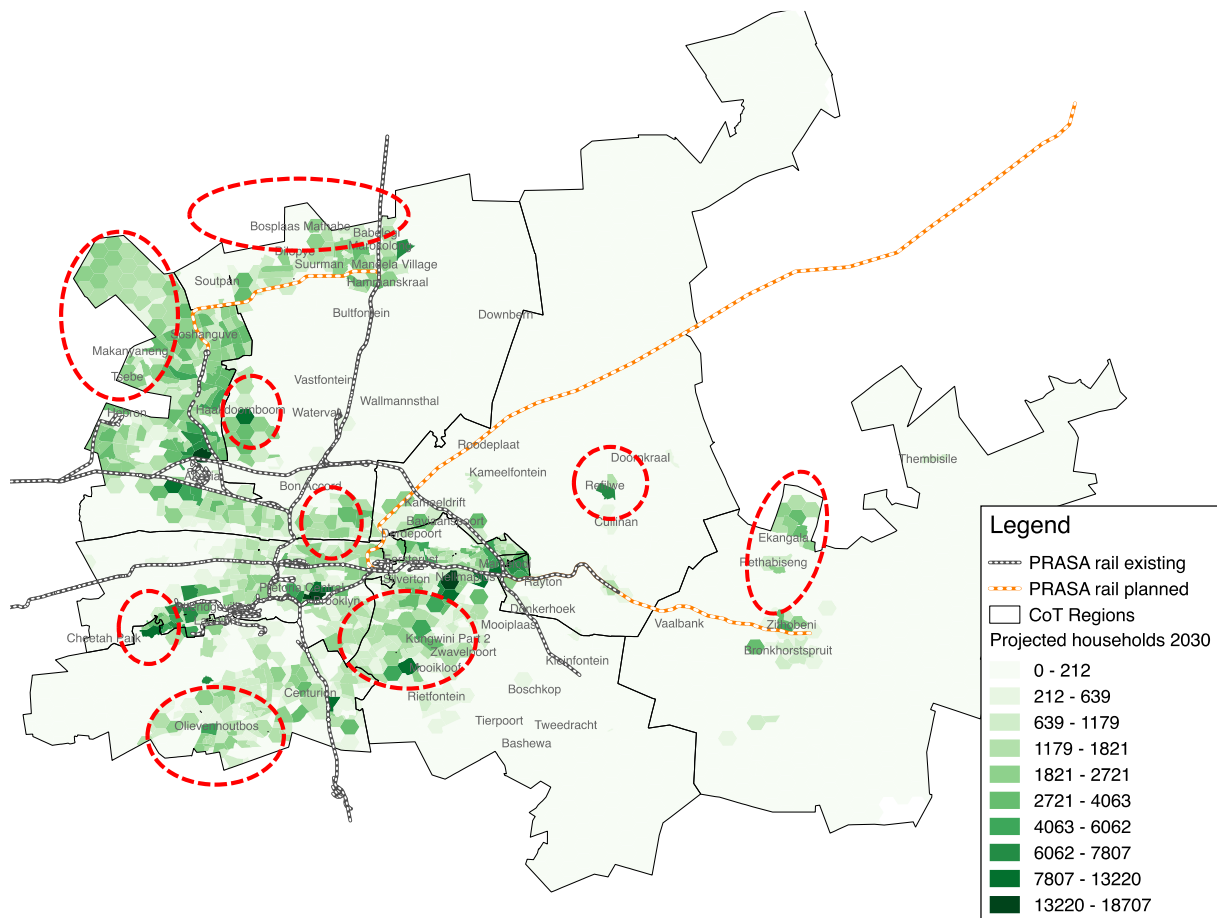
planning would be based on this principle. It is important to bear in mind that the main users of the Metro Rail are the lower income groups of the City, with destinations mainly being work or education opportunities. The focus of PRASA's service will be on dedicated, right-of-way, rail-based commuter services between major nodes. See Figure F-2.

**Figure F-2: Existing and planned PRASA rail**



Currently, the PRASA rail network links the Pretoria CBD (with its work and education opportunities) with the northern, southern, western and central areas of Tshwane. There are limited links to the east, to areas such as Bronkhorstspuit, Kameelfontein and Cullinan. The planned extensions to the network will provide a link between Soshunguve and Hammanskraal, a link between Bronkhorstpruit and the Pretoria CBD, and a link between the Pretoria CBD with Kameelfontein and the Moloto area in Mpumalanga. Here follows a comparison of the existing and planned PRASA rail network with the projected number of households and work opportunities in 2030, as modelled by the CSIR.

**Figure F-3: PRASA rail in relation to projected households in 2030**



It can be seen from Figure F-3 that the following projected residential areas will not have access to the PRASA metro rail service (existing or planned):

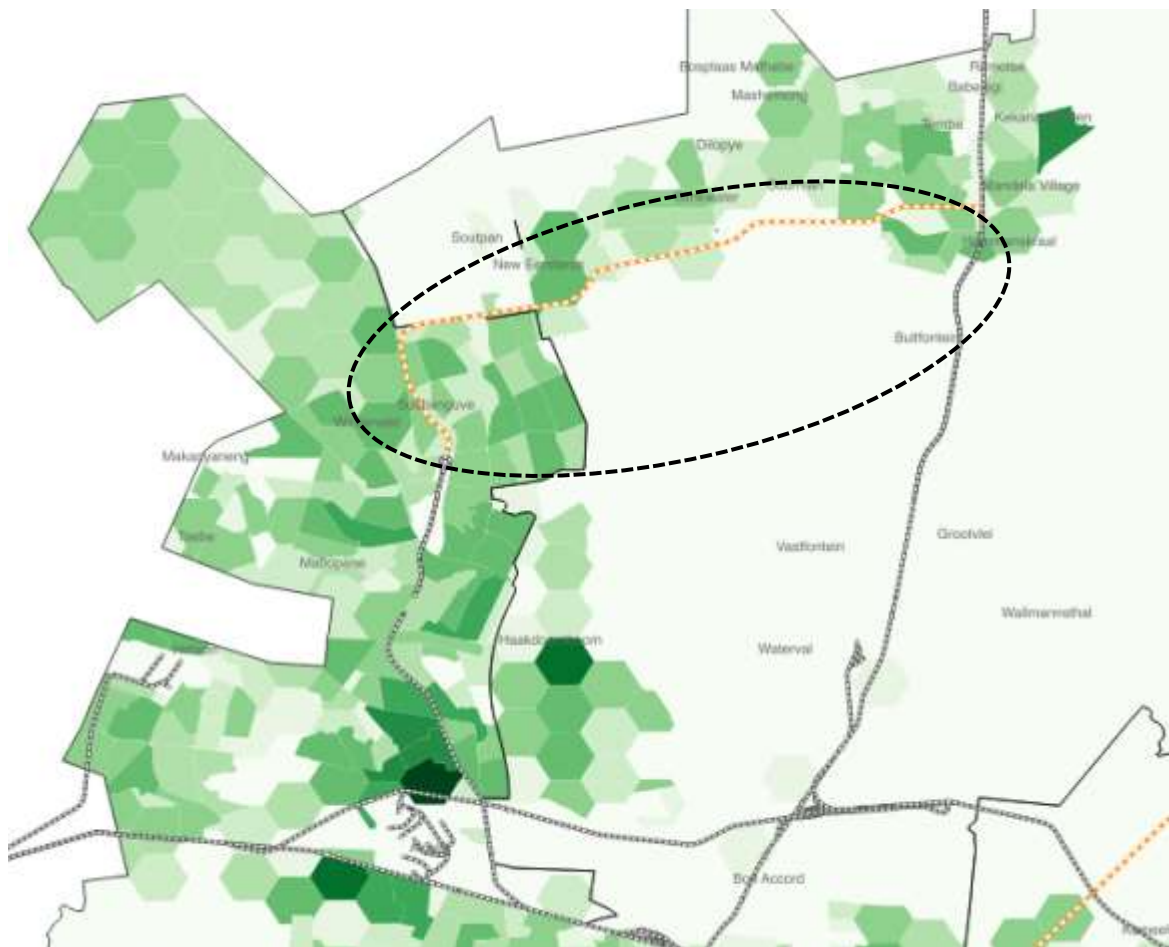
- The far northern areas of Tshwane (Bosplaas, Babelegi, Diloppe, Haakdoornboom);
- The far north-west area of Tshwane (Winterveldt, Tsebe, Makanyaneng);
- The area immediately north of the CBD (Montana, Sinoville, Doornpoort, Wonderboom)
- The area to the west of Atteridgeville
- The south-west area of Tshwane (Olivenhoutbosch)
- The area south-east of the CBD (Kongwini, Rietfontein, Mooikloof, Zwavelpoort)
- Areas in the east of Tshwane (Refilwe, Ekangala, Rethabiseng)

From the findings above, it is important to make the correlation that most of these areas (except for the Montana, Doornpoort, Sinoville and Wonderboom areas) are expected to house mainly residents from the lower income brackets. Since these residents are precisely the users who require access to an affordable mode of public transport, such as the Metro Rail, the connectivity of these areas to the

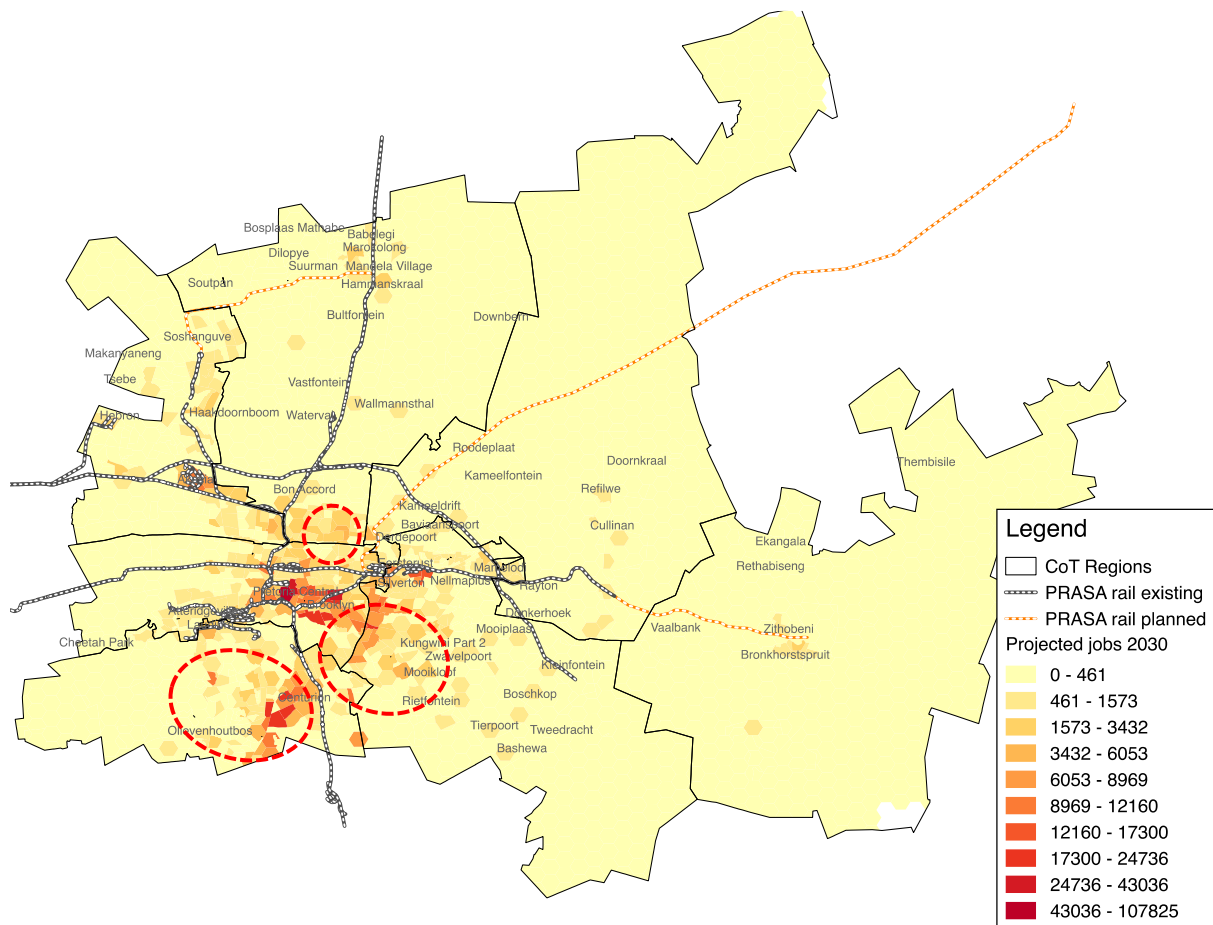
Metro Rail service should be a priority for the City. As per the IRPTN, PRASA and the CoT have an agreement that the City will provide services that feed the rail service – it is strongly recommended that the City provides and prioritise feeder services to the rail system in the areas mentioned above.

Further, the planned section of rail which will link Hammanskraal to Soshanguve (see Figure F-5) will serve the residential areas of northern Soshanguve, New Eersterus, Stinkwater, Dioppe and Suurman. The IRPTN states that this section of network exists, but needs to be reinstated as a commuter line. It is recommended that this reinstatement be prioritised.

**Figure F-4: Planned PRASA rail in north-eastern Tshwane**



**Figure F-5: PRASA rail in relation to projected employment areas in 2030**



It can be seen from Figure F-5 that the following projected employment areas will not have access to the PRASA metro rail service:

- The area immediately north of the CBD (Montana, Sinoville, Doornpoort, Wonderboom)
- The south-west area of Tshwane (Olivenhoutbosch)
- The area south-east of the CBD (Waterkloof, Moreleta Park, Rietfontein, Mooikloof)

The Olivenhoutbosch area (south-west of Tshwane) was also shown to have a lack of connectivity to the rail network in the residential areas assessment above – this finding strengthens the recommendation that the City prioritise implementing feeder services from this area to the rail service.

### ***F.2.3 Gautrain Rapid Rail***

The Gautrain Rapid Rail service has been operational since 2010, and links Hatfield to the Johannesburg CBD and OR Tambo International Airport via Pretoria CBD and Centurion. There is future planning in place to extend the network to link to Mamelodi and Pretoria East, and in Johannesburg



to link to Fourways, Randburg, Roodepoort and Soweto. The Gautrain also provides a bus feeder system at each of its stations.

Whilst the Gautrain service does provide some connectivity between areas of high projected residential demand and projected employment opportunities, it is important to note that this service caters to a specific market segment i.e. the middle to upper income earners. It is a relatively expensive service to use and therefore precludes many of the low income earners in the City.

**Figure F-6: Existing and Planned Gautrain network in relation to projected households in 2030**

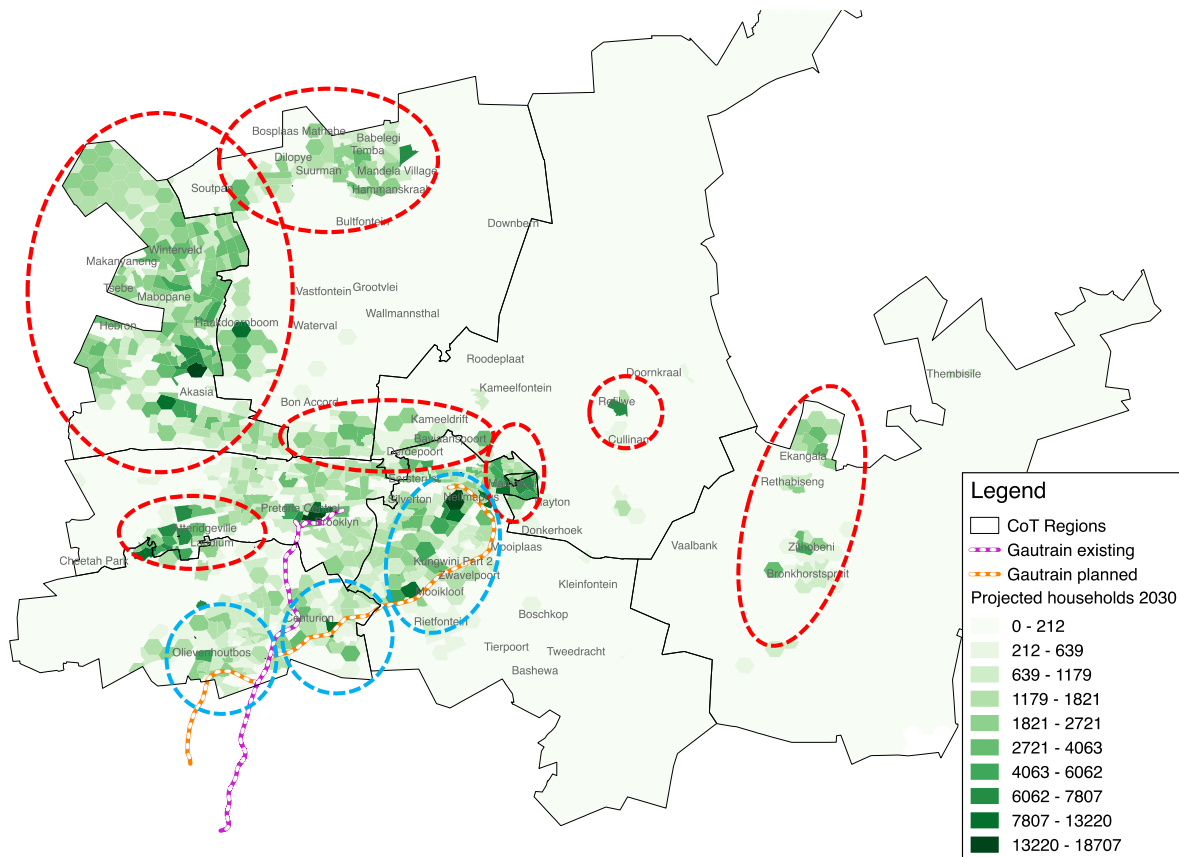


Figure F-6 shows the existing and planned Gautrain network in relation to the projected households in 2030. The network provides little connectivity to the high density residential areas as circled in red; however, it is unlikely that the predominantly low income residents in these areas would use the Gautrain as it is cost-prohibitive. Some middle to upper income earners in the medium to high density residential areas of Pretoria East, Centurion and Olievenhoutbosch (circled in blue) will likely make use of the planned Gautrain service.

**Figure F-7: Existing and Planned Gautrain network in relation to project jobs in 2030**

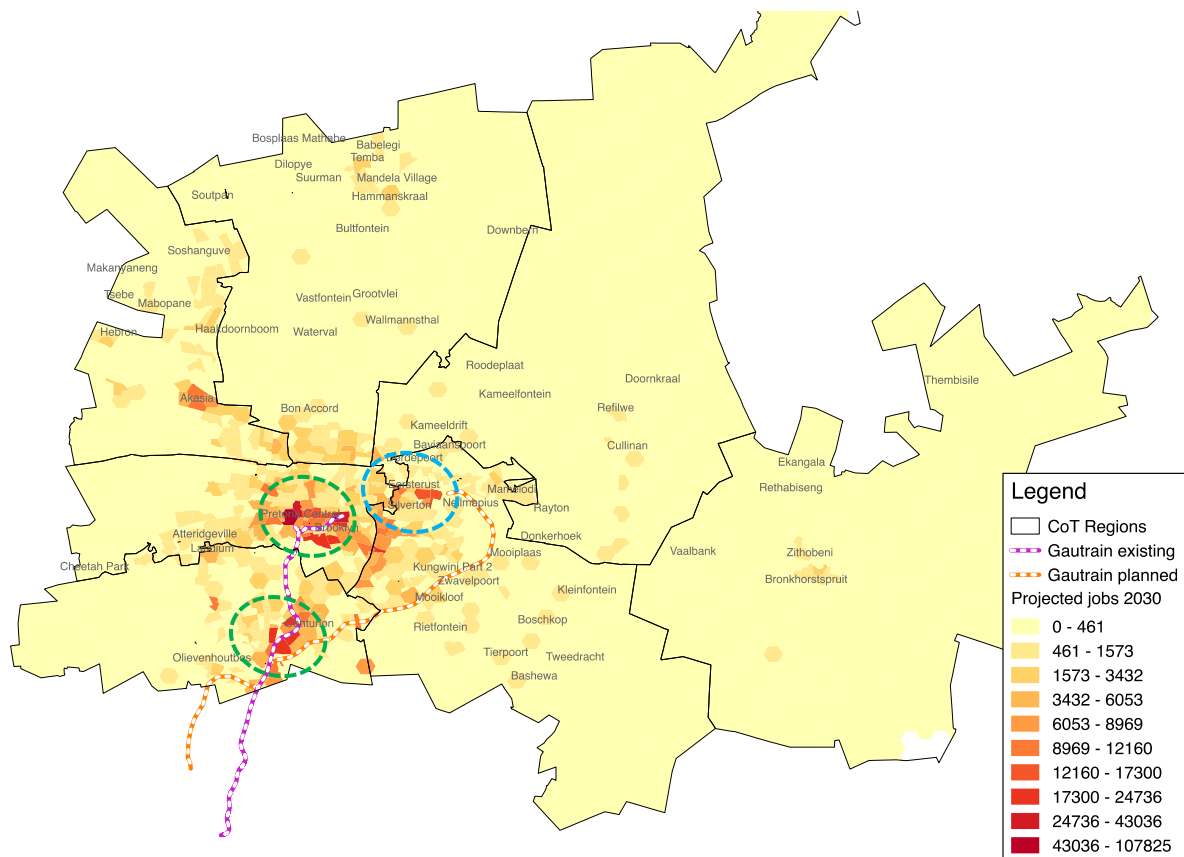


Figure F-7 shows the reach of the existing and planned Gautrain network in relation to projected jobs in the 2030 scenario. The employment areas of Pretoria CBD, Hatfield and Centurion (circled in green) are currently serviced by the Gautrain network. The employment area around Silverton (circled in blue) will benefit from future Gautrain connectivity; it is important to stress again that the Gautrain service is cost-prohibitive and so inaccessible to lower income earners – the Silverton area is one of predominantly industrial use and so it can be assumed that the majority of employees in this area will be lower income earners.

#### ***F.2.4 IRPTN: A Re Yeng Tshwane Rapid Transit***

The City's Tshwane Rapid Transit (TRT) makes up a substantial portion of the total IRPTN. The modes of choice for the TRT is Bus Rapid Transit (BRT). Currently, two TRT trunk routes are operational; one between Pretoria CBD and Hatfield, and the other between Pretoria CBD and Rainbow Junction. The City plans to have six TRT trunk lines operational by 2028, accompanied by complementary and feeder systems. See Figure F-8 for the TRT operational roll out, and Table F-1 for the TRT project phasing and go live dates, as per the 2016-2028 A Re Yeng Operational Plan.

Figure F-8: TRT Operational Roll Out

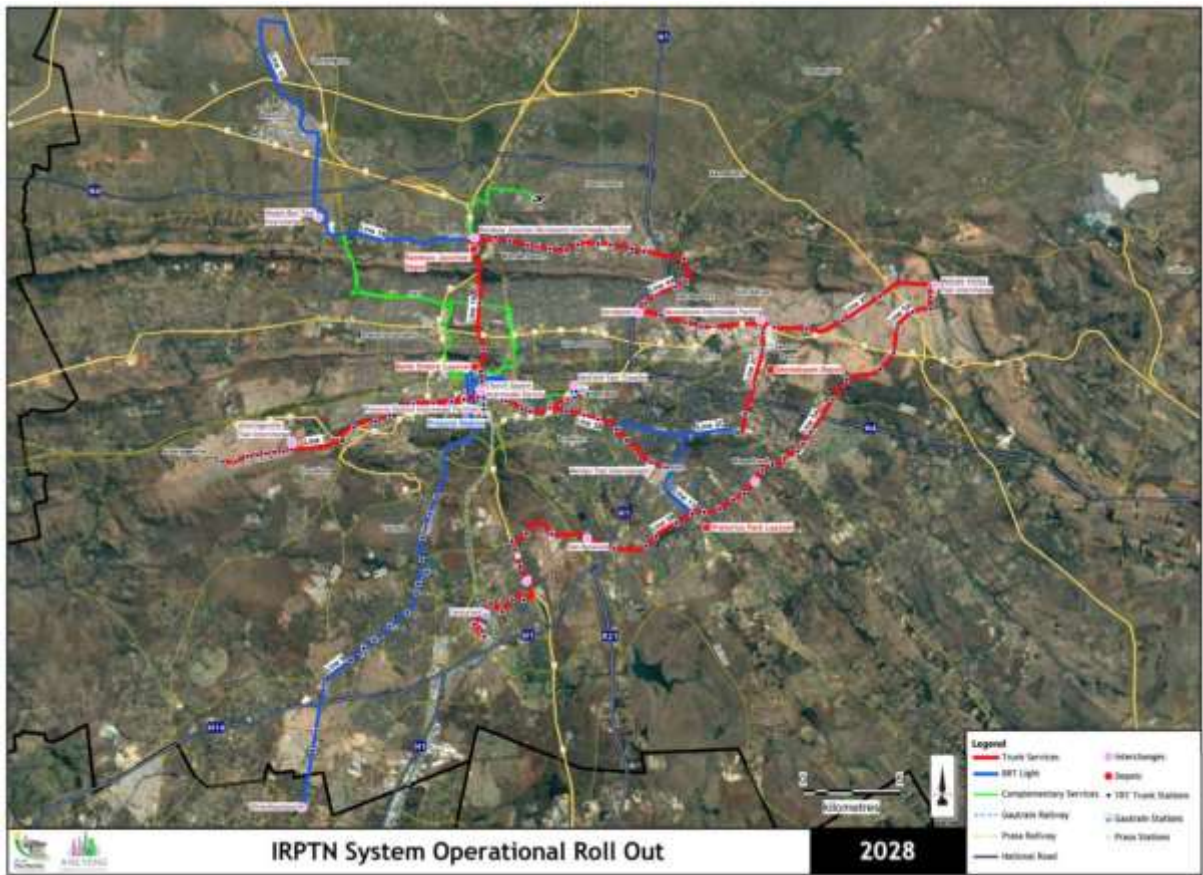


Table F-1: A Re Yeng TRT Project Phasing and Go Live Dates

INFRASTRUCTURE CONSTRUCTION PHASING	CONSTRUCTION AREA DESCRIPTION	BRT LINE	CONSTRUCTION START DATE	SIGNIFICANT CONSTRUCTION COMPLETION DATE	'GO LIVE' DATE
Phase 1A	PRETORIA CENTRAL (Paul Kruger Street) to Hatfield	BRT Line 2A	January 2013	Completed	Nov 2014
Phase 1B	Mayville to Hatfield via PRETORIA CENTRAL	BRT Line 1A	April 2013	Completed	Quarter 2 (2016/17)
Phase 1C	Wonderboom (Rainbow Junction) to Mayville	BRT Line 1A	September 2014	Completed	Quarter 2 (2016/17)
Phase 1D	Hatfield to Menlyn	BRT Line 2B	November 2016	October 2018	Quarter 3 (2018/19)
Phase 1E	Menlyn to Denneboom Station	BRT Line 2C	November 2016	May 2018	Quarter 3 (2018/19)
Phase 1F	Rainbow Junction to Akasia	BRT Line 1B	June 2018	August 2019	Quarter 2 (2019/20)
Phase 1G	Akasia to Kopanong	BRT Line 1C	June 2018	August 2019	Quarter 2 (2019/20)
Phase 1H	CBD to Atteridgeville	BRT Line 3	October 2018	March 2020	Quarter 4 (2019/20)
Phase 1I	Denneboom to Mahube Valley	BRT Line 2D	November 2019	April 2021	Quarter 4 (2020/21)
Phase 1 (of Phase 2 Network)	Denneboom to Rainbow Junction	BRT Line 4	July 2021 (2 years)	June 2023	Quarter 2 (2023/24)
Phase 2A (of Phase 2 Network)	Mahube Valley to Garsfontein	BRT Line 5A	July 2023 (1 year 6 months)	December 2024	Quarter 4 (2024/25)
Phase 2B (of Phase 2 Network)	Menlyn (Atterbury Road(M11)) to Garsfontein (Solomon Mahlangu Road (M10))	BRT Line 11	October 2024 (9 months)	June 2025	Quarter 1 (2025/26)
Phase 2C (of Phase 2 Network)	Garsfontein (Solomon Mahlangu Road (M10)) to Centurion CBD	BRT Line 5B	April 2025 (1 year 9 months)	December 2026	Quarter 4 (2026/27)
Phase 3 (of Phase 2 Network)	Pretoria CBD (Pretoria Station) to Olivenhoutbosch	BRT Line 6	January 2027 (1 year 6 months)	June 2028	Quarter 2 (2028/29)

As mentioned previously in this chapter, the IRPTN network, in particular along the TRT network sections, have undergone some planning changes since the IRPTN study of 2014. The changes in the proposed TRT route alignment are as follows:

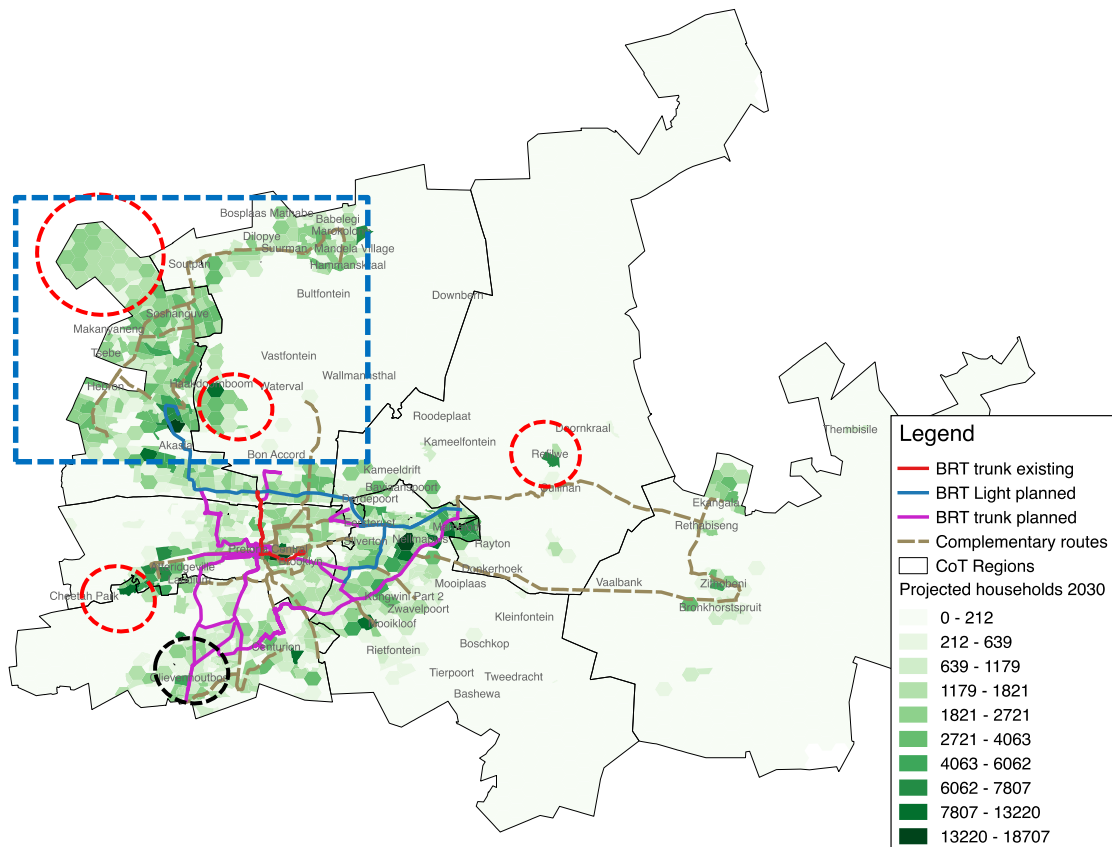
- Line 3 in the Atteridgeville area is shortened and ends in the centre of Atteridgeville.
- Two complementary routes are introduced between Rainbow Junction and the Pretoria CBD, one each along Steve Biko Road and Es'kia Mphahlele Drive. This is intended to provide additional capacity to the north-south movement that the trunk route along Paul Kruger Road services.

A further change to the TRT system is the proposal of a BRT Light system along some of the previously proposed TRT trunk routes. This was done in response to low ridership and the high financial and time-related costs of implementing and operating a full BRT trunk service along those particular route. Although not yet approved as a strategy, the BRT Light is proposed as a lower specification service, with the main BRT Light features being:

- The service will not have right of way (BRT trunk service has right of way); this reduces the capacity of the service by approximately half,
- The service will operate mainly in mixed traffic with dedicated bus lanes on small portion of the route (BRT trunk service operates on a dedicated lane),
- The service stations will be of a lower order, without doors, and located on the left-hand kerb of the road (BRT truck service stations are higher order and located in the median). Passengers will access the vehicle from the left-hand side,
- The service will be fed complementary services run by the TRT, with feeder services possibly being provided by the minibus taxi industry (BRT trunk services have both complementary and feeder services operated by the TRT).



**Figure F-9: Existing and Planned BRT in relation to project households in 2030**



In Figure F-9, the existing and planned BRT network covers the projected residential areas substantially, except for these locations (circled in red):

- The far north-western area of Tshwane (Winterveldt);
- The far south-western area of Tshwane (Atteridgeville West)
- Refilwe

The following is recommended:

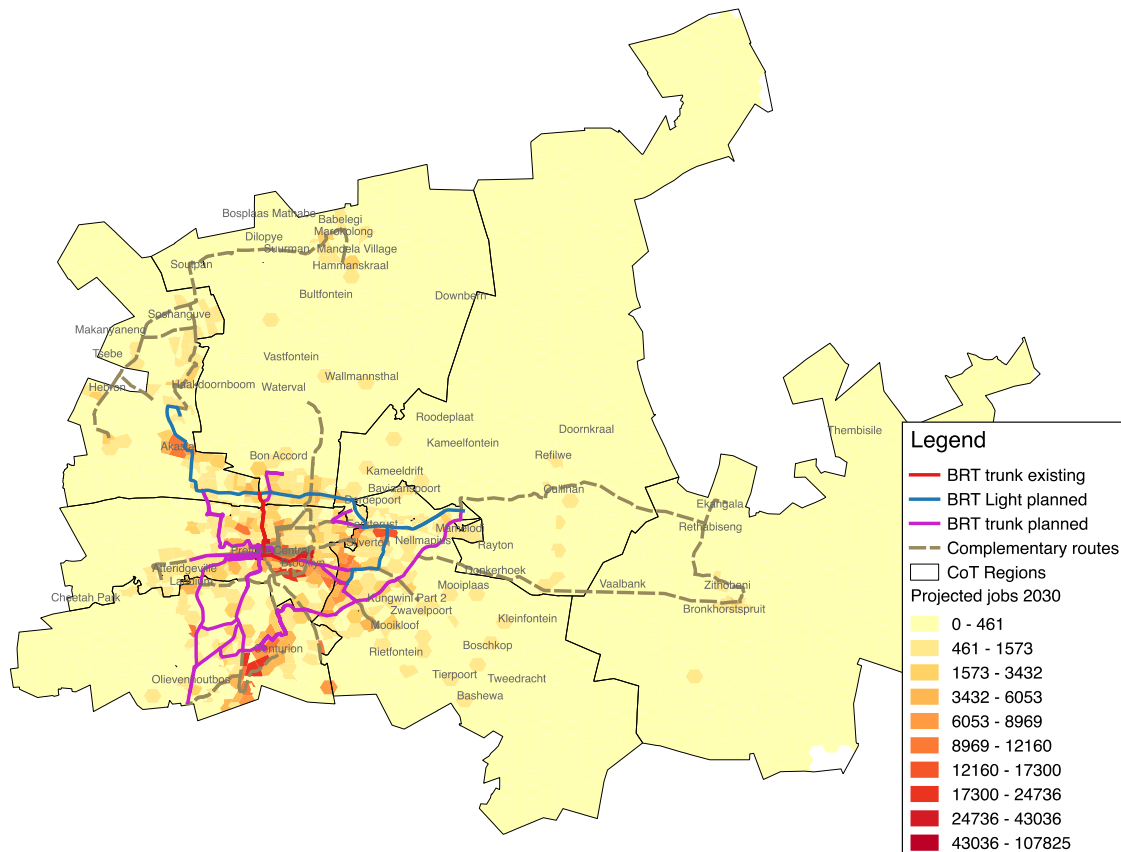
- That a feeder service be planned to service the Winterveldt area which is projected to have a significant residential population in the future;
- That the TRT trunk route to Atteridgeville (Line 3) which was recently shortened, be reassessed to include services to the far west of Atteridgeville.
- That the complementary route between Pretoria, Cullinan and Bronkhorstspuit be reassessed to consider a route realignment into Refilwe.

Further, the significant projected residential density in the entire north-western Tshwane area (from Hammanskraal to Winterveldt, Soshungu and Mabopane – shown in blue square) will require a mass transit system to provide sufficient transport for the area. The planned BRT complementary routes

are unlikely to suffice. It is recommended that, along with the extension of the PRASA Metro Rail line between Soshanguve and Hammanskraal, consideration be given to extending the Atteridgeville BRT trunk route northwards.

Additionally, the Olievenhoutbosch (in the south-west of Tshwane) benefits from future coverage of the BRT network – this part of the network should be given a higher order of priority to transport residents and employees alike between the area and the PRASA Metro Rail or the Pretoria CBD.

**Figure F-10: Existing and Planned BRT Network in relation to projected jobs in 2030**



In the Figure F-10 the existing and planned BRT network serves the areas of work opportunities substantially. If the BRT system is completed in 2028 as planned, workers will be able to access most projected areas of employment in Tshwane by BRT.

### **F.2.5 IRPTN: Summary**

When comparing the coverage of the existing and planned PRASA Metro Rail network, the Gautrain Rapid Rail network and the BRT network, the following can be deduced:

- The entire north-western Tshwane area (Mabopane, Soshanguve, Winterveldt and Hammanskraal) is projected to experience dense future residential demand. This area will require a mass rapid transit system to meet this demand. It is recommended that the planned PRASA Metro Rail extension between Soshanguve and Hammanskraal be prioritised to meet this demand – this must be implemented with feeder systems

between the residential areas and the PRASA stations. It is further recommended that consideration be given to extending the planned trunk route to Soshanguve (Line 1) further north.

- There is a lack of planned coverage in the far north-western area of Tshwane (Winterveldt). It is recommended that feeder systems to the planned BRT or PRASA Metro Rail services be prioritised for this area.
- There is a lack of planned coverage in the area to the west of Atteridgeville. It is recommended that the recent change to the planned BRT route to Atteridgeville (Line 3) be reassessed to incorporate additional coverage to the area to the west of Atteridgeville.
- The projected residential and employment in the Olievenhoutbosch area is relatively dense, with little existing or planned public transport coverage other than the planned BRT network. This part of the network should receive some priority to be able to meet the future expected demand in this area.

## ***F.2.6 Alignment of public transport with the Sustainable Human Settlements Plan***

### ***F.2.6.1 Introduction***

In view of national, provincial and even local space economy policies, it is imperative that we ensure an investment correlation between physical economic infrastructure and targeted economic hubs, to ensure that the broadest possible opportunities for job creation and that the city's economic growth are ensured.

The BEPP agrees with the Urban Simulation undertaken by the CSIR in that if the investments are misaligned with accurate development futures, whether due to over- or under-estimation of population growth, lack of understanding of demographic profiles (e.g. income groupings of the future); misinterpretation of area-based population growth; assumptions around which sectors of the economy will grow and where; unmet expectations of the available workforce to meet the demands of the economy that is being pursued or even disproportionately low levels of private sector investment in public-driven initiatives, these investments may become superfluous white-elephants, even ghost cities, left to haunt the financial reserves of the City and detracting from the funding required to pursue impactful initiatives that will decisively reduce socio-economic inequality in the City.

### ***F.2.6.2 City of Tshwane Sustainable Human Settlement Plan, 2014***

Since 1994 South Africa has embarked on several programmes towards building a better life for all by providing, amongst others, shelter and basic services for the poorest of communities in the country. As part of the system of developmental local government, and in terms of the Municipal Systems Act, municipalities are required to develop Integrated Development Plans (IDPs) that are to serve as the basis for service delivery. According to the Housing Act, 1997 section 9(1)(f), every municipality must, as part of the municipality's process of integrated development planning, take all reasonable and necessary steps within the framework of national and provincial housing legislation and policy to



initiate, plan, coordinate, facilitate, promote and enable appropriate housing development in its area of jurisdiction.

The City of Tshwane produced Sustainable Human Settlement Plan for its area of jurisdiction, not only to comply with the requirements of the Department of Housing Human Settlements, but also to ensure that the City of Tshwane meets their constitutional obligation of ensuring that their residents have proper access to sustainable housing solutions. The primary objective of the Sustainable Human Settlements Plan can be summarized as follow:

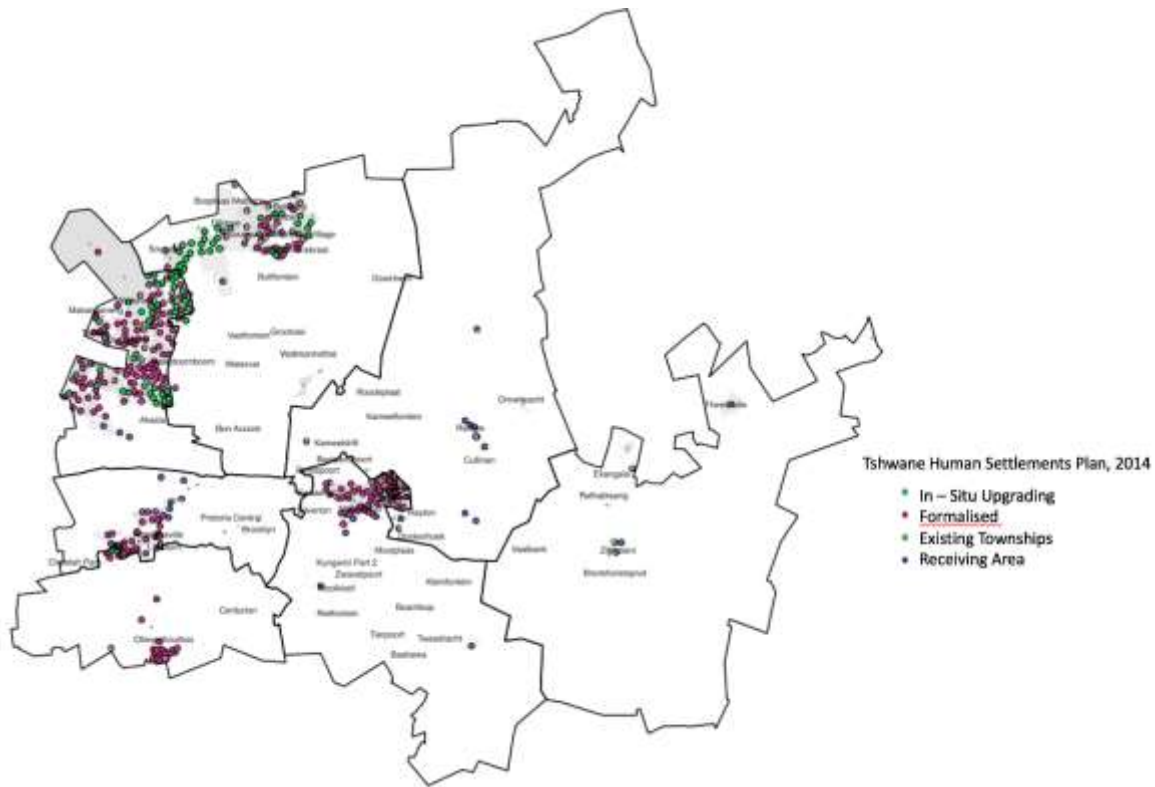
- To ensure effective allocation of limited resources, financial and human, to a wide variety of potential development initiatives;
- To provide guidance in prioritising housing projects in the Tshwane area to obtain consensus for the timing and order of their implementation;
- To ensure more integrated development through coordinating cross-sector role players to aligning their development interventions in one plan;
- To ensure budget allocations to the City of Tshwane are most effectively applied for maximum impact;
- To provide effective linkages between the City of Tshwane Spatial Development Framework and the location of housing projects which include a range of social, economic, environmental and infrastructure investments;
- To ensure there is a definite housing focus in the IDP and SDF with clear direction for future housing delivery across all social and economic categories and locations in the municipality;
- To provide the City of Tshwane IDP and Budgeting process with adequate information about the housing plan, its choices, priorities, parameters as well as strategic and operational requirements;
- To ensure that the contents and process requirements of planning for housing are adequately catered for in the IDP process; and
- To ensure that there is indicative subsidy budgeting and cash flow planning at both the municipal and provincial levels.

The City has identified, by means of the Sustainable Human Settlements Plan 2014, the current demand of underserved townships. The plan differentiated between the following categories:

- In – Situ Upgrading

- Formalised
- Existing Townships
- Receiving Area

**Figure F-11: Underserved Township categories, Sustainable Human Settlements Plan 2014**



The spatial distribution of the underserved townships is clearly on the periphery of the city. Any development that does not stimulate economic activity within these areas, primarily Mamelodi, Atteridgeville, Olivenhoutsbosch and Soshanguve up to Temba, will reinforce the spatial inequality of the City and would demand fruitless spending by the City. On the other hand, development that enables linkages between these areas and economic opportunities, will stimulate the economy of the said areas, reducing inequality and will address spatial and economic reform in the City. This in turn will align with the City's endeavours to realign, revitalize and re-industrialise and so will unlock favourable spending by the City which will ensure the long-term sustainability of not only the human settlements but also the spatial municipality that is Tshwane.

### **F.2.6.3 Underserved Townships and Projected Economic Opportunities**

The Tshwane Human Settlements Plan identified informal settlements, existing townships, areas that should be upgraded in-situ, and areas that should be developed as receiving areas – receiving relocated informal settlers. For this document, and in the context of the UNS typology of Treasury, these areas as a collective could be classified as underserved townships.

Sustainable Human Settlement as defined in the National Department of Housing's Comprehensive Plan of 2004 are: "Well-managed entities where economic growth and social development are in balance with the carrying capacity of the natural systems on which they depend for their existence, and result in sustainable development, wealth creation, poverty alleviation and equity. The present and future inhabitants of sustainable human settlements, located both in urban and rural areas, live in safe and secure environments, and have adequate access to economic opportunities, a mix of safe and secure housing and tenure types, reliable and affordable basic services, educational, entertainment and cultural activities, and health, welfare and police services.

It is clear from the definition of the National Department of Housing's Comprehensive Plan of 2004, that a vital component of a sustainable human settlement is the ability of its inhabitants to have access to economic opportunities. In the figure below, one would find that most the underserved townships as identified by the Tshwane Human Settlements Plan will not be in a proximity to economic opportunities by 2030.

**Figure F-12: City of Tshwane Human Settlements Plan in relation to expected economic opportunities in 2030, CSIR**



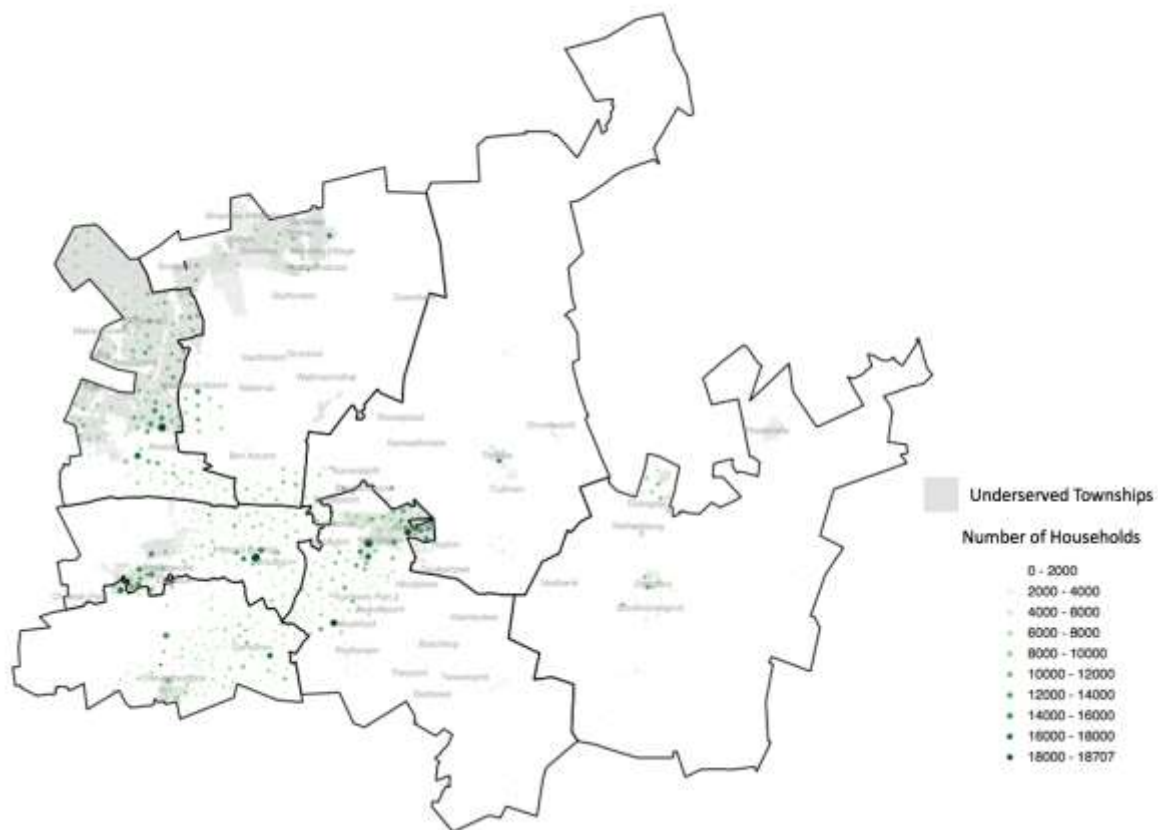
The figure above shows that expected areas of economic opportunities are not in a proximity to the underserved townships. Given that little to no economic stimulants are expected to be developed in the underserved townships, only one option remains – to link the underserved townships with economic hubs.

#### **F.2.6.4 Underserved Townships and Projected Household Growth**

The Tshwane Human Settlements Plan identified informal settlements, existing townships, areas that should be upgraded in-situ, and areas that should be developed as receiving areas – receiving relocated informal settlers. For this document, and in the context of the UNS typology of Treasury, these areas as a collective could be classified as underserved townships.

The CSIR has projected future household growth in the City of Tshwane. It is interesting to note that in terms of household growth, most nodes fall within the underserved townships such as Atteridgeville, Mamelodi, Nellmapius and Soshanguve. The densification and compaction of these nodes are in line with the City's spatial directive, but it should be noted that such growth is only sustainable and fitting if these nodes of residential nature are linked to economic opportunity nodes – as stipulated in the City's spatial directive.

**Figure F-13: Underserved Townships as per the City of Tshwane Human Settlements Plan in relation to expected household growth, CSIR**

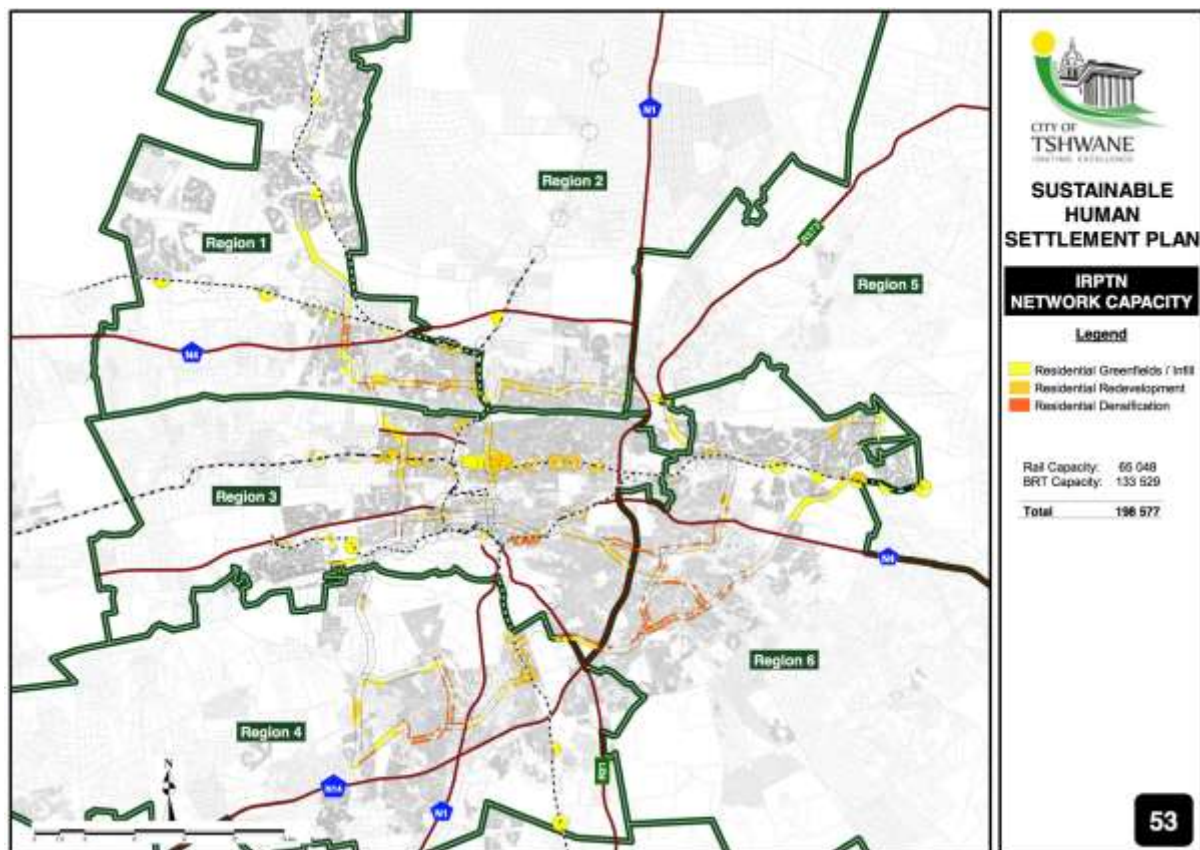


The figure above shows that the current spatial distribution of Tshwane will only be exacerbated over the next few years – during a period where the City has an opportunity to rethink and reprioritize spatial intervention that will unlock a more desirable and sustainable city.

#### ***F.2.6.5 Focus areas of the Sustainable Human Settlements Plan, 2014***

It continues to identify 198 577 housing opportunities that could be provided along the IRPTN. The figure below shows the spatial distribution of the said proposal.

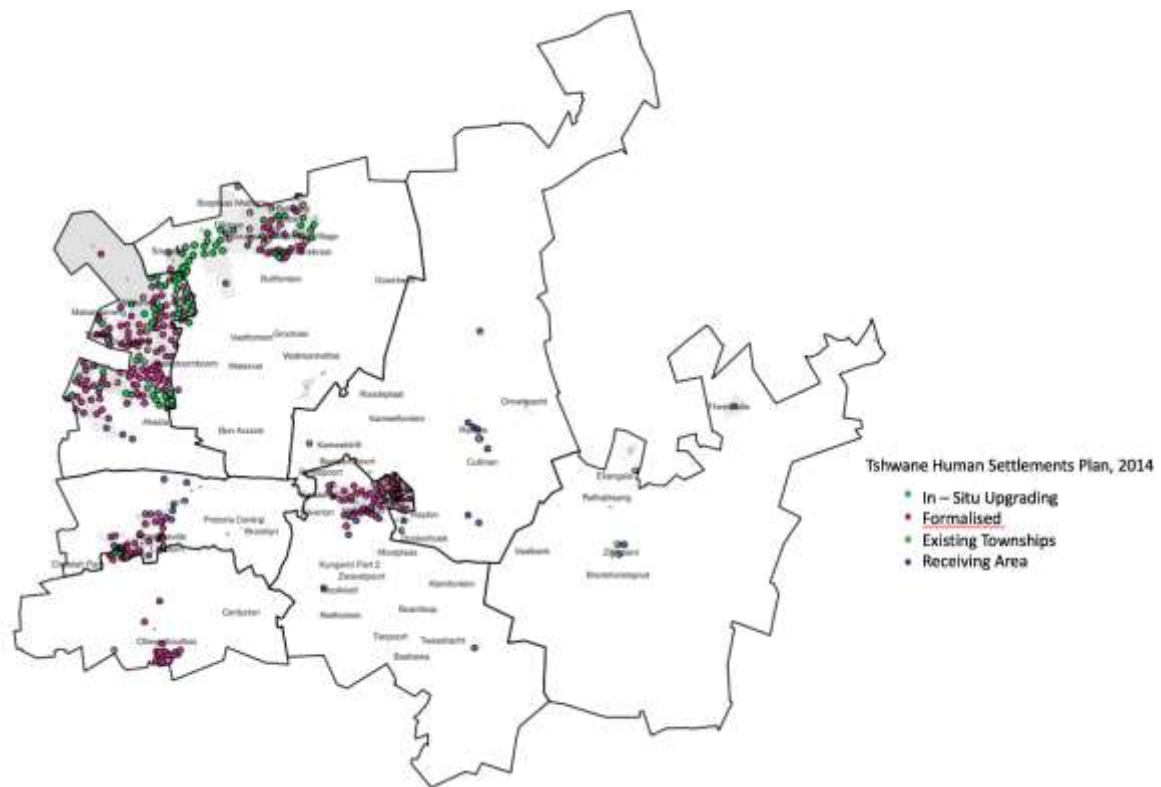
**Figure F-14: Possible housing development along IRPTN, Sustainable Human Settlement Plan 2014**



Additionally, the Sustainable Human Settlements Plan of Tshwane propose a multi-fronted approach in addressing the housing demand in the City. Alternative to housing development along the IRPTN, it proposes the following two options:

- In Situ Upgrading
- Relocation

**Figure F-15: Underserved Township categories, Sustainable Human Settlements Plan 2014**



The Urban Network Structure however, strive to end exacerbation of existing impoverished areas as identified by the City of Tshwane Deprivation Index and realign housing opportunities with activity nodes.

The following figure shows the relation between the In Situ upgrading, formalization and relocation proposals made by the Human Settlements Plan, 2014, and the Urban Network Structure of the City of Tshwane.





- Give equal access to the City's social and economic infrastructure.

### ***F.2.8 Developments Trends within the City***

**Figure F-17: Private Sector Housing Developments**

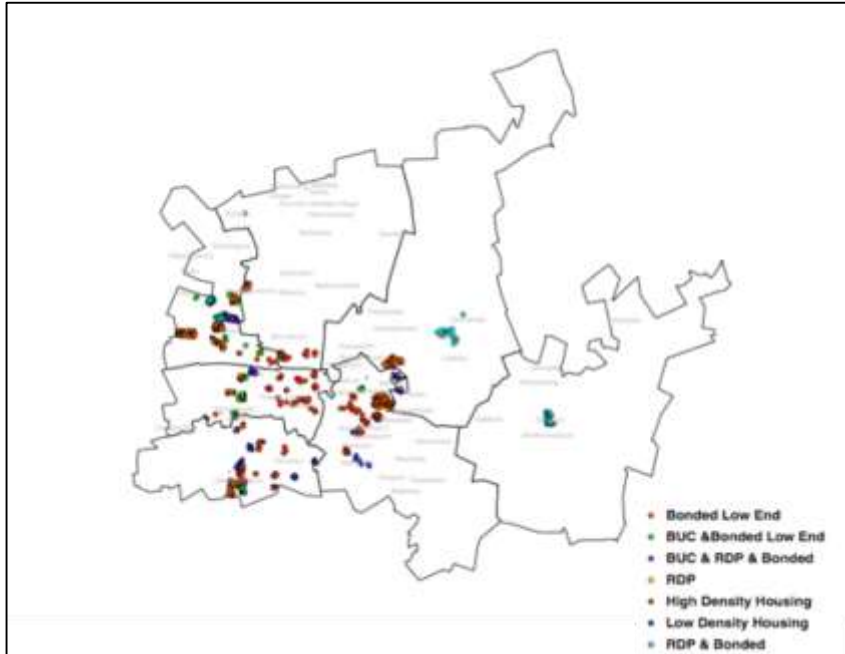


Figure F-17 indicates the trends of housing development in the City by the Private Sector, and more specifically the trend of investments within the IRPTN corridors. The densification, by the densification overlay zoning within a 500m buffer zone around the TRT corridors, enables private development investments.

The dominant reality however is that the city has highly dispersed, mono-functional land use layouts that affect not only government systems but also residents. Residence of Tshwane need to travel long distances to and from places of work, which turns into higher travel costs and less time and money to spend on other social or recreational aspects that result in more rewarded lifestyles. Yet many of the poorest people live in the most peripheral locations of the city and are most disadvantaged by the long travelling distances. Focused investment of densification on IRPTN corridors by the City, more specifically the Housing and Human Settlements department, should be investigated further to ensure Social Equality and better lifestyle quality for all within the borders of the municipality.

Spatial transformation is at the core of addressing the issues faced, which is one of the Transformation Goals in Vision 2030. While the tendency has been to suggest that transport can lead to spatial restructuring, the reality is more complex. Transport and land use are dependant and public transport can serve as a catalyst to land intensification but will not automatically achieve spatial restructuring.



The investments and ongoing densification of the corridors needs to be matched by the City to ensure spatial transformation by means of social equality.

#### **F.5 Institutional Arrangements and Operating Budget**

Refer to Institutional Arrangements and Operating Budget in section G.

## **G Institutional Arrangements and Operating Budget**

### **G.1 Cross Cutting Institutional Arrangements**

CoT to populate this section.

### **G.2 Consolidated Operating Budget**

#### ***G.2.1 Background***

The City of Tshwane (CoT) has embarked on an augmented process of integrated budgeting which allows for conducting various “what-if” scenario analysis in order to enhance overall budget credibility, relevance and sustainability.

The results from the Budgeting Simulator© system (for each scenario conducted) will be utilised to inform and compile a multi-year CoT budget in which:

1. Cognisance has been taken of historic trends and drivers of individual budget line items, based on audited historic financial information;
2. Growth in individual budget line items as well as the interrelationship between budget line items have been analysed and considered;
3. The Operating and Capital budget have been integrated and is therefore inclusive of the contemporaneous effects of both budgets;
4. Ratio analysis has been conducted in terms of:
  - a. Operating and net cash flows;
  - b. Liquidity; and
  - c. Borrowing;
5. The funding of both the Operating budget and the Capital budget have been analysed;
6. Budget line items correspond to official Return Forms and is therefore reconcilable to mSCOA line items.

#### ***G.2.2 The Process***

##### Step 1: Preparation of a Status Quo forecast over a five year planning horizon

The Status Quo forecast (SQ) provides a bird’s-eye view of the forecast CoT financial position inclusive of:

- The current CoT policies and strategies as expressed in financial terms;
- The current CoT loan book (all long term loans and bonds);
- The current CoT MTREF operating budget;
- The current CoT capital budget projects which are already committed and prioritised according to the output of the Capital Planning System, including the resultant effects on the:
  - Cash flows during the implementation period;
  - Operating budget upon and after implementation. The effect on depreciation is automatically included. Effects on other operating budget line items can be included on a project-by project basis, based on available pre-feasibility or feasibility studies;

- Historic audited amounts for each forecast operating budget line item, as well as working capital, reserves and borrowing.

Based on these inputs, the consolidated and integrated SQ forecast provides quantified and selected graphic results on, amongst others:

- Each individual return form line item;
- The accounting and cash operating surplus/deficit;
- Operational and capital project cash flows;
- Movements in the total cash position;
- Various growth percentage analyses;
- Operational cash flow ratios and measurement;
- Liquidity ratios and measurement;
- Borrowing position ratios and measurement;
- Analyses of the operational budget funding position;
- Analyses of the capital budget funding position.

#### Step 2: Critically assess the SQ results and adjust accordingly

An assessment of the results will enable any identified issues to be addressed through the following adjustable levers:

- Adjusting forecast growth percentages in individual line items;
- Adjusting various working capital/reserves/borrowing policies and strategies;
- Critically analysing and adjusting individual committed projects and prioritisation in terms of capital expenditure, future operating income and expenditure, possible debt funding and grant funding.

The resulting adjusted SQ forecast will then be analysed further in the next step, with a particular view on addressing any remaining funding gaps.

#### Step 3: Test the effects of new debt and planned projects

To test the effects of any new long term debt instruments, a further three forecast scenarios can be prepared. Utilising the adjusted SQ forecast (or normal SQ forecast if no adjustments were required), the following three scenarios can be tested:

1. Addition of new vanilla debt instruments with no changes to the project list;
2. Addition of planned projects (on top of already committed projects) with no changes to the debt profile;
3. Addition of both items in 1 and 2 above.

Quantified and selected graphic results are again presented for each of these forecasts, enabling comparison and identification of possible areas requiring further attention.

Further adjustments can be made to test the impact on the total integrated budget of:

- Possible changes to CoT policies and strategies;
- Adjustments to the CoT operating budget;
- Changes to the CoT project list, including reprioritisation, funding, operational impact upon implementation, etc;
- New debt;

- Approval of any planned projects.

#### Step 4: Coordination, consultation and budget compilation

After assessing the integrated budget, the process of coordination and consultation may be conducted, taking into consideration the results of the different planning scenarios.

The aim is to support inter-sectoral municipal coordination as well as consultation with other stakeholders at all levels of government.

The proposed investment and funding strategies for the intergovernmental project pipeline as included in the Capital Planning System and assessed on an integrated level in the Budgeting Simulator®, can be discussed and coordinated with all relevant stakeholders. Further and differing funding possibilities can be investigated and assessed according to steps 2 and 3 above.

Upon completion of the coordination and consultation process, the integrated operating and capital budgets can be compiled and submitted to the approval process.

### **G.2.3 Alignment with reporting requirements**

The table below sets out a summary of the process's alignment with and support to applicable reporting requirements.

**Table G-1: Reporting Requirements**

	Applicable reporting requirement	Alignment
1	mSCOA	Line items are according to official return forms and therefore reconcilable to mSCOA
2	Funding of both operating and capital budgets	Analysis of the funding position of both the integrated operating and capital budgets
3	Credibility of budget, revenue framework, budget assumptions across multi-year planning horizon	Five-year planning horizon which allows for viewing and testing of various assumptions, including interrelationships between budget items. Growth percentages are calculated across the planning horizon
4	Audited annual financial statements used to determine trends	Historic information included and available for trend analysis, compiled from audited annual financial statements
5	Alignment with strategic initiatives	Inclusion of the Capital Planning System prioritised projects, and integrating with the operating budget. Further coordination and consultation supported by results
6	Budget sustainability	An integrated view in terms of relevant indicators, growth percentages, ratios and funding positions, allowing for assessment and appropriate management of budget sustainability
7	BEPP alignment	Augmented alignment between planning, budgeting, monitoring and evaluation of the intergovernmental project pipeline as well as all projects, both committed and planned

## H Reporting and Evaluation

BEPP indicators guide metropolitan municipalities ensuring that they strategically align with legislated planning and budgeting requirements for local government and other spheres of government. The City of Tshwane are currently in progress of revising the IDP. In this section, a correlation between the current IDP Outcomes or Goals and the BEPP Outcomes will be identified.

Detailed Evaluation of the BEPP indicators is attached to this document as Annexure 1. From the above, for the 2017/18 BEPPs, the reporting is on the baselines and the set targets of 8 indicators that is required for which cities will need to set targets. The 8 reported integrated outcome indicators are WG7, WG8, WG13, IC1, IC2, IC3, IC6 and IC7. With the additional national indicator information provided and sourced from the BEPP document guidelines that was populated to the extent of information availability.

Table H-1 indicates the methodology used to determine the scoring / value of the various indicators. All data was not available at the date of calculations of the BEPP indicators, thus the starting point for possible source section within the table below.

**Table H-1: BEPP Indicator Methodology and Way-forward**

Indicator short name	New code	Proposed Formula (Methodology)	Spatial Filter	Shape required	Attributes fields required	Starting point for Possible Source
Voter turnout as a percentage of registered voters for all elections in municipal area	WG9	Number of voters that voted/Total number of registered voters in the municipality	None	-	-	Stats-SA / Demarcation Board: Voter Turnout Stats-SA / Demarcation Board: Register Voters
Value of catalytic infrastructure projects as listed in the BEPP at financial closure as a % of total MTREF capex budget value	WG7	Total budget of infrastructure projects/Total budget of MTREF	None	-	-	CP3 Analysis on project infrastructure type together with BEPP Annexure 1
Hectares approved for future development outside the 2015 urban edge as a percentage of Hectares allocated for	CC1	Size of future developments outside Urban Edge/Total size of future development in Municipality	Municipal Area	detailed location of Future developments Urban Edge	Feature ID Size of Future Developments Boundary of Urban edge 2015	City GIS and or Land Use office: Hectares of approved future development City GIS: Urban Edge City GIS or Consultants: SDF 2015

Indicator short name	New code	Proposed Formula (Methodology)	Spatial Filter	Shape required	Attributes fields required	Starting point for Possible Source
future development as defined by the 2015 SDF						
Number of land use applications processed in integration zones as a percentage of the total number of land use applications submitted city-wide.	CC2	Land use application process in integration zones/Total number of land use applications in Municipality	Municipal Area	Location of land use application	Feature ID Application type Land use type before Land use type after erf description	City GIS or Land use office: Land use applications processed
Number of building plan applications processed in integration zones as a percentage of the total number of building plan applications city-wide	CC3	Building plan applications processed in integration zones/Total number of building plan applications in the Municipality	Municipal Area	Location of building plan applications	Feature ID Erf description Building plan application number	City GIS or Land use/building plan office: Building Plan applications
Area of vacant developable erven in integration zones as a percentage of area of vacant developable erven city wide.	CC4	Size of vacant developable erven in integration zones/Total number of vacant developable erven in the City	Municipal Area	Vacant erven (Public and Private)	Feature ID Erf description Erf size Development status	City GIS or Consultants: Vacant Developable erven
Percentage change in the value of privately owned buildings completed in Integration Zones	WG13	Budget value of privately owned buildings now/Budget value of privately owned buildings in base year	Municipal Area	Building footprint	Feature ID Ownership Value of building (Rand Value 2015, 2016, 2017)	Valuation Roll (2014,2015,2016,2017): Value of privately owned buildings

Indicator short name	New code	Proposed Formula (Methodology)	Spatial Filter	Shape required	Attributes fields required	Starting point for Possible Source
Percentage of city-wide population within a 10 km of a local library	IC15	Population within 10km of local Library/Total population of the Municipality	Municipal Area	Local libraries	Feature ID	City GIS or StatsSA sub place: Population City GIS: Libraries
Percentage of city-wide population within a 5 km of a clinic	IC16	Population within 5km of clinic/Total population of the Municipality	Municipal Area	Clinics	Feature ID	City GIS or StatsSA sub place: Population City GIS: Clinics
Percentage of city-wide population within a 5 km of a primary school	IC17	Population within 5km of primary school/Total population of the Municipality	Municipal Area	Primary Schools	Feature ID	City GIS or StatsSA sub place: Population City GIS: Primary Schools
Percentage of city-wide population within a 15 km of a Thusong service centre	IC18	Population within 15km of Thusong service centre/Total population of the Municipality	Municipal Area	Thusong service centre	Feature ID	City GIS or StatsSA sub place: Population City GIS: Thusong Service Centres
Percentage of city-wide population within a 5 km of an Early Child Development centre	IC19	Population within 5km of Early child development centre/Total population of the Municipality	Municipal Area	Early Child Development centre	Feature ID	City GIS or StatsSA sub place: Population City GIS: early Childhood Development Centre
Percentage of city-wide population within a 5 km of a secondary school	IC20	Population within 5km of secondary school/Total population of the Municipality	Municipal Area	Secondary school	Feature ID	City GIS or StatsSA sub place: Population City GIS: Secondary School
Percentage of city-wide population within a 30 km of district hospital.	IC21	Population within 30km of District hospital/Total population of the Municipality	Municipal Area	District Hospital	Feature ID	City GIS or StatsSA sub place: Population City GIS: District Hospital
Informal dwellings in integration zones that have been upgraded, as a percentage of all informal dwellings in integration zones.	IC6	Population within 15km of Thusong service centre/Total population of the Municipality	Municipal Area	Informal Dwellings	Feature ID erf Description	City GIS or Consultants: Informal Dwellings

Indicator short name	New code	Proposed Formula (Methodology)	Spatial Filter	Shape required	Attributes fields required	Starting point for Possible Source
Ratio of housing types in integration zones	IC3	(Housing type(A): Housing type (B): Housing type (n)) Integration Zone	Municipal Area	Housing type	Feature ID Housing type	City GIS or Consultants: Housing Types
Ratio of housing tenure status in integration zones	IC4	(Housing tenure status(A): Housing tenure status(B): Housing tenure status(n)) Integration Zone	Municipal Area	Housing type	Feature ID Housing tenure status	City GIS or Consultants: Tenure Status Alternatively Consult StatsSA data Alternatively consult latest Household Survey data
New subsidised units developed in Brownfields developments as a percentage of all new subsidised units city-wide	IC1	Subsidised units constructed in subject year in Brownfields/Total number of subsidised units in the Municipality	Municipal Area	Brownfields Subsidised units	Feature ID subsidised units Erf description	City GIS: Subsidised units developed per year City GIS or authors of RSDF: Brownfields developments CoT: Confirm definition of City Wide
Ratio of land use types (residential, commercial, retail, industrial) in integration zones	IC5	(Land use type(A): Land use type((B): Land use type((n)) Integration Zone	Municipal Area	Land use	Feature ID Erf Description Land use	City GIS: Land use types across whole city Alternatively: Authors of the RSDF for Land use types across whole City
Number of all dwelling units within Integration Zones that are within 500 metres of access points to the integrated public transport system as a percentage of all dwelling units within Integration Zones	IC7	500m buffer (Number of dwelling units)/Integration zone(Number of dwelling units)	Municipal Area	Dwelling units IRPTN Station	Feature ID	City GIS: location of Dwelling Units Integration Zones City GIS: Provide location of access points in order to calculate 500m access points to Integrated Public Transport System (Stations)



The current BEPP Outcomes are structured to enable growth, sustainability, equality and good governance, with the following indicators:

Integrated Outcome Area	Result Statement
Well-governed City	Vision and Leadership to initiate and drive spatial restructuring
	Capability to plan, facilitate, deliver and manage urban spatial transformation
	Partnering with citizens, civil society, private and public sectors
	Delivery of catalytic projects in spatially targeted areas
Inclusive City	New housing options with social diversity
	Affordable and efficient public transport services
	Integrated public transport system that is used by the majority of city inhabitants
	Social facilities and services
Productive Cities	Growing city economies
	Increased city productivity
	Decoupling of non-renewable energy inputs from economic growth
Environmentally Sustainable city	Integrity of ecosystems
	Climate mitigation and adaptation
	Sustainable resource utilisation
Compact Cities	Established integration zones

The IDP Outcomes are based on the Transformation Vision 2030 that structures the City of Tshwane in the City's future planning for the following 14-years. The principles of the Vision 2030 are premised on the following pillars:

1. A City that facilitates economic growth and job creation;
2. A City that cares for residents and promotes inclusivity;
3. A City that delivers excellent services and protects the environment;
4. A City that keeps residents safe;
5. A City that is open, honest and responsive

By understanding both these indicators / outcomes gives guidance to the Build Environment. Regarding the new Outcomes of the IDP it is evident that the outcome based approach of the BEPP has influenced the Goals set by the Transformation Vision 2030, and is clearly depicted in the figure below. The green blocks indicate the correlation between the two different indicators.

**Table H-2: Correlation of Transformation Vision 2030 and BEPP Outcomes**

	Well governed city	Compact City	Inclusive City	Productive City	Ecological Sustainable City
A City that Facilitates Economic Growth & Job Creation					
A City that cares for residents and promotes inclusivity					
A City that delivers excellent services and protects the environment					
A City that keeps residents safe					
A City that is open, honest and responsive					

## **Annexure 1:**

### **BUILT ENVIRONMENT OUTCOMES INDICATORS & TARGETS**

**Annexure 2:**  
**INTERGOVERNMENTAL PROJECT PIPELINE**

**Annexure 3:**  
**CATALYTIC PROJECTS**

**Annexure 4:**  
**EVALUATION FRAMEWORK FOR BEPP 2017/18 MTREF**

Indicator short name	New code	Proposed Formula (Methodology)	Spatial Filter	Shape required	Attributes fields required	Starting point for Possible Source
Voter turnout as a percentage of registered voters for all elections in municipal area	WG9	Number of voters that voted/Total number of registered voters in the municipality	None	-	-	Stats-SA / Demarcation Board: Voter Turnout Stats-SA / Demarcation Board: Register Voters
Value of catalytic infrastructure projects as listed in the BEPP at financial closure as a % of total MTREF capex budget value	WG7	Total budget of infrastructure projects/Total budget of MTREF	None	-	-	CP3 Analysis on project infrastructure type together with BEPP Annexure 3
Hectares approved for future development outside the 2015 urban edge as a percentage of Hectares allocated for future development as defined by the 2015 SDF	CC1	Size of future developments outside Urban Edge/Total size of future development in Municipality	Municipal Area	detailed location of Future developments Urban Edge	Feature ID Size of Future Developments Boundary of Urban edge 2015	City GIS and or Land Use office: Hectares of approved future development City GIS: Urban Edge City GIS or Consultants: SDF 2015
Number of land use applications processed in integration zones as a percentage of the total number of land use applications submitted city-wide.	CC2	Land use application process in integration zones/Total number of land use applications in Municipality	Municipal Area	Location of land use application	Feature ID Application type Land use type before Land use type after erf description	City GIS or Land use office: Land use applications processed
Number of building plan applications processed in integration zones as a percentage of the total number of building plan applications city-wide	CC3	building plan applications processed in integration zones/Total number of building plan applications in the Municipality	Municipal Area	Location of building plan applications	Feature ID Erf description Building plan application number	City GIS or Land use/building plan office: Building Plan applications
Area of vacant developable erven in integration zones as a percentage of area of vacant developable erven city wide.	CC4	Size of vacant developable erven in integration zones/Total number of vacant developable erven in the City	Municipal Area	Vacant erven (Public and Private)	Feature ID Erf description Erf size Development status	City GIS or Consultants: Vacant Developable erven
Percentage change in the value of privately owned buildings completed in Integration Zones	WG13	Budget value of privately owned buildings now/Budget value of privately owned buildings in base year	Municipal Area	Building footprint	Feature ID Ownership Value of building (Rand Value 2015, 2016, 2017)	Valuation Roll (2014,2015,2016,2017): Value of privately owned buildings
Percentage of city-wide population within a 10 km of a local library	IC15	Population within 10km of local Library/Total population of the Municipality	Municipal Area	Local libraries	Feature ID	City GIS or StasSA sub place: Population City GIS: Libraries
Percentage of city-wide population within a 5 km of a clinic	IC16	Population within 5km of clinic/Total population of the Municipality	Municipal Area	Clinics	Feature ID	City GIS or StasSA sub place: Population City GIS: Clinics
Percentage of city-wide population within a 5 km of a primary school	IC17	Population within 5km of primary school/Total population of the Municipality	Municipal Area	Primary Schools	Feature ID	City GIS or StasSA sub place: Population City GIS: Primary Schools
Percentage of city-wide population within a 15 km of a Thusong service centre	IC18	Population within 15km of Thusong service centre/Total population of the Municipality	Municipal Area	Thusong service centre	Feature ID	City GIS or StasSA sub place: Population City GIS: Thusong Service Centres
Percentage of city-wide population within a 5 km of an Early Child Development centre	IC19	Population within 5km of Early child development centre/Total population of the Municipality	Municipal Area	Early Child Development centre	Feature ID	City GIS or StasSA sub place: Population City GIS: early Child Development Centre
Percentage of city-wide population within a 5 km of a secondary school	IC20	Population within 5km of secondary school/Total population of the Municipality	Municipal Area	Secondary school	Feature ID	City GIS or StasSA sub place: Population City GIS: Secondary School
Percentage of city-wide population within a 30 km of district hospital.	IC21	Population within 30km of District hospital/Total population of the Municipality	Municipal Area	District Hospital	Feature ID	City GIS or StasSA sub place: Population City GIS: District Hospital

Informal dwellings in integration zones that have been upgraded, as a percentage of all informal dwellings in integration zones.	IC6	Population within 15km of IThusong service centre/Total population of the Municipality	Municipal Area	Informal Dwellings	Feature ID erf Description	City GIS or Consultants: Informal Dwellings
Ratio of housing types in integration zones	IC3	(Housing type(A): Housing type (B): Housing type (n))Integration Zone	Municipal Area	Housing type	Feature ID Housing type	City GIS or Consultants: Housing Types
Ratio of housing tenure status in integration zones	IC4	(Housing tenure status(A): Housing tenure status(B): Housing tenure status(n))Integration Zone	Municipal Area	Housing type	Feature ID Housing tenure status	City GIS or Consultants: Tenure Status Alternatively Consult StatSA data Alternatively consult latest Household Survey data
New subsidised units developed in Brownfields developments as a percentage of all new subsidised units city-wide	IC1	Subsidised units constructed in subject year in Brownfields/Total number of subsidised units in the Municipality	Municipal Area	Brownfields Subsidised units	Feature ID subsidised units Erf description	City GIS: Subsidised units developed per year City GIS or authors of RSDF: Brownfields developments CoT: Confirm definition of City Wide
Ratio of land use types (residential, commercial, retail, industrial) in integration zones	IC5	(Land use type(A): Land use type(B): Land use type((n))Integration Zone	Municipal Area	Land use	Feature ID Erf Description Land use	City GIS: Land use types across whole city Alternatively: Authors of the RSDF for Land use types across whole City
Number of all dwelling units within Integration Zones that are within 500 metres of access points to the integrated public transport system as a percentage of all dwelling units within Integration Zones	IC7	500m buffer(Number of dwelling units)/Integration zone(Number of dwelling units)	Municipal Area	Dwelling units IRPTN Station	Feature ID	City GIS: location of Dwelling Units Integration Zones City GIS: Provide location of access points in order to calculate 500m access points to Integrated Public Transport System (Stations)



[illegible]

Ratio of housing tenure status in integration zones	IC4	Housing	B.O 1.6b	Stats SA GHS	Annual												
New subsidised units developed in Brownfields developments as a percentage of all new subsidised units city-wide	IC1	Housing	BI1.2	City and Department of Human Settlements	Annual												
Gross residential unit density per hectare within integration zones	IC2	Spatial Planning and Land Use Management	BO1.4	City GIS	Every three years								33people per Ha				
Ratio of land use types (residential, commercial, retail, industrial) in integration zones	IC5	Spatial Planning and Land Use Management	BI2.7	City land use planning	Every three years												
Capital expenditure on integrated public transport networks as a percentage of the municipal capital expenditure	IC9	Transport		National Treasury - Section 71 reporting	Annual					37.10%	28.30%	18%	13%	12%			
Number of all dwelling units within Integration Zones that are within 500 metres of access points to the integrated public transport system as a percentage of all dwelling units within Integration Zones	IC7	Transport	BO2.1	City GIS	Every three years												
Percentage share of household income spent on transport costs for different household income quintiles city-wide	IC8	Transport	BO2.2	Stats SA GHS	Annual												
Average weekday peak hour commuting time of passengers via the public transport system city-wide	IC10	Transport	BO2.3a	Stats SA GHS	Annual												
Percentage of commuters (city-wide) using private motorised transport	IC12	Transport	BO2.5	Stats SA GHS	Annual					44%							
Percentage of all passenger trips that use the same ticketing system	IC13	Transport	BO2.7	City transport authority or department	Annual												
Number of reported accidents involving cyclists and pedestrians city-wide per 100 000 population	IC14	Transport	BO2.9	Stats SA / SAPS	Annual												
Average weekday peak hour commuting time of passengers from home to work or educational institution	IC11	Transport	BO2.3b	Stats SA GHS	Annual												
Productive GVA of the single metro as a percentage of national productive GVA	PC1	Economic Development	CO1.1	City / Agency / Stats SA	Annual					8.8%	8.8%	8.9%	8.9%				
Productive GVA for a single metro per economically active person as a % of the national productive GVA per economically active person.	PC2	Economic Development	CO1.2	Agency / Stats SA	Annual					115%	112%						
Commercial and industrial rateable value for a single metro as a percentage of commercial and industrial rateable value of all metros.	PC3	Economic Development	CO1.3	Cities' valuation departments	Annual												
Commercial and industrial rateable value within integration zone for a single metro as a % of overall commercial and industrial rateable value for that same metro.	PC4	Economic Development	CO1.4	City valuation department	Annual												
Megawatt hours of electricity consumed as a percentage of GVA for single metro as a percentage of the corresponding ratio for all metros	PC5	Economic Development	CO1.15	Cities' electricity departments / Eskom / Department of Water and Sanitation /	Annual												
Megalitres of bulk water supplied as a percentage of GVA for single metro as a percentage of the corresponding ratio for all metros	PC6	Economic Development	CO1.16	City solid waste department / Agency	Annual												
Tons of solid waste to landfill as a percentage of GVA for single metro as a percentage of the corresponding ratio for all metros	PC7	Economic Development	CO1.17	City energy, city electricity or climate	Annual												
Energy consumed by municipal buildings and municipal fleet	SC1	Electricity/energy	DO2.1	City electricity or climate change	Annual												
Annual amount of electricity bought from renewable sources as a percentage of all electricity bought	SC2	Electricity/energy	DO2.1.3	City energy department or project management	Annual												
Number of Solar Water Heater subsidies paid out	SC3	Electricity/energy	DO2.1.5	National Treasury - Section 71 reporting	Annual												
Non-revenue electricity as a percentage of electricity purchased	SC7	Electricity/energy	DO3.6	City solid waste department	Annual												
Tonnes of domestic waste sent to landfill per capita	SC8	Solid Waste	DO3.7a	City solid waste department / city land	Annual												
Tonnes of commercial and industrial waste sent to landfill per GLA of commercial and industrial property	SC9	Solid Waste	DO3.7b	Department of Water and Sanitation	Annual												
Green drop score for municipality	SC4	Water & Sanitation	DO3.1	Department of Water and Sanitation	Every two years					81.60%							
Blue drop score for the municipality	SC5	Water & Sanitation	DO3.3	Department of Water and Sanitation	Every two years					94.4%							

Percentage of non-revenue water produced	SC6	Water & Sanitation	DO3.4	Department of Water and Sanitation	Annual					25.70%	26.10%				
--	-----	--------------------	-------	------------------------------------	--------	--	--	--	--	--------	--------	--	--	--	--

## Annexure 2: Intergovernmental Project Pipeline

Intergovernmental Project Pipeline									
		2017/18		2017/18					
Priority	Category	Project Description	Municipal	Provincial	National	PRASA	SANRAL	ESKOM	Total
<b>Centurion Areas</b>									
		(710115) Contributions: S	R 19,412,496						R 19,412,496
		(710411A2) Sunderland R	R -						R -
		(712872) Tshwane Electric	R -						R -
		(710176) Replacement of	R -						R -
		(710865) Olievenhoutbosch	R 30,000,000						R 30,000,000
		(712279) Monavoni 132/1	R 30,000,000						R 30,000,000
		710178 (005) Electricity fo	R -						R -
		710178 (006) Electricity fo	R -						R -
		710178 (015) Electricity fo	R -						R -
	Education	Olievenhoutbosch Secondary No.2		R 4,405,000.00					R 4,405,000
	Human Settlements	Olievenhoutbosch Ext 27		R 27,737,000.00					R 27,737,000
	Human Settlements	Olievenhoutbosch Ext 36		R 19,539,000.00					R 19,539,000
	Human Settlements	Olievenhoutbosch Ext 60 (COT)		R 6,657,000.00					R 6,657,000
Sub Total			R 79,412,496	R 58,338,000	R -	R -	R -	R -	R 137,750,496
<b>Inner City</b>									
		(712591) Extra buses for r	R -						R -
		Handheld terminals and b	R -						R -
		(712969) Credit Control Sc	R 10,000,000						R 10,000,000
		(710026) Replacement Of	R 3,092,719						R 3,092,719
		(710213) One Integrated t	R 20,000,000						R 20,000,000
		(710229) Traffic Calming A	R 178,600						R 178,600
		(711404) Replacement Of	R 4,478						R 4,478
		(711455) Renovation & Up	R 384,615						R 384,615
		(712121G) Silver Lakes ou	R -						R -
		(712483) New Connection	R 28,312,146						R 28,312,146
		(712872) Tshwane Electric	R -						R -
		(712908) Electricity vendi	R 5,833,330						R 5,833,330
		(712988) Informal Trade M	R 6,900,000						R 6,900,000
		(712915) Upgrading of Ca	R 33,000,000						R 33,000,000
		(711442) Upgrading of mu	R -						R -
		(712978) Automation of s	R -						R -
		(712500) Purchasing of Po	R 13,000,000						R 13,000,000
		(712587) Disaster risk ma	R 3,000,000						R 3,000,000
		(712989) Corporate capita	R 5,000,000						R 5,000,000
		(712533) Capital Funded f	R 9,507,000						R 9,507,000
		710005 (016) Upgrading/S	R 1,073						R 1,073
		(713006) Automated Fare	R 10,000,000						R 10,000,000
		(713050) Mobile X-Ray Ur	R -						R -
		(713022) Inner City Regen	R 14,403,562						R 14,403,562
		(712591) Line 3: CBD to A	R 4,268,474						R 4,268,474
	Education	Pretoria Primary School		R -					R -
	Education	Tshwane Secondary School		R -					R -
	Health	Boikutsong CDC- Conversion of CHC into new Boikut		R 36,200,000.00					R 36,200,000
	Human Settlements	Boikhutsong/ Orange Farm (Planning work)		R 1,100,000.00					R 1,100,000
	Human Settlements	Sunnyside		R 5,547,000.00					R 5,547,000
	Sports, Arts, Culture and P	Women's Living Heritage Monument		R 34,985,000.00					R 34,985,000
	NDPW	Southern Gateway Precinct			R 350,000,000.00				R 350,000,000
	NDPW	Government Boulevard			R 1,100,000.00				R 1,100,000
	NDPW	Northern Gateway Precinct			R 100,000,000.00				R 100,000,000

	NDPW	Capital Hill Precinct			R	50,000,000.00			R	50,000,000
	NDPW	Civic Precinct			R	50,000,000.00			R	50,000,000
	PRASA	Station upgrade				R	8,000,000.00		R	8,000,000
	PRASA	Rectify vertical clearance at Ketjen Street road-over-rail bridge and provide a stormwater network				R	4,000,000.00		R	4,000,000
	PRASA	Reconfiguration of luxury coach facility				R	45,000,000.00		R	45,000,000
Sub Total			R	166,885,998	R	77,832,000	R	608,100,000	R	57,000,000
			R	-	R	-	R	-	R	-
<b>Pretoria East</b>										
		(710026) Replacement Of	R	12,037,231					R	12,037,231
		(710129) Major Stormwat	R	-					R	-
		(710229) Traffic Calming A	R	337,243					R	337,243
		(710395) Traffic Lights/Tra	R	115,040					R	115,040
		(710411) Baviaanspoort w	R	30,000,000					R	30,000,000
		(711213) Stormwater Dra	R	1,000,000					R	1,000,000
		(711404) Replacement Of	R	7,540,106					R	7,540,106
		(711455) Renovation & Up	R	384,615					R	384,615
		(712121G) Silver Lakes ou	R	-					R	-
		(712223) Flooding Backlog	R	-					R	-
		(712278) Upgrading Of Cli	R	5,000,000					R	5,000,000
		(712518) Flooding backlog	R	2,000,000					R	2,000,000
		(712521) Collector Road B	R	200,000					R	200,000
		(712612) Upgrading of Sib	R	1,500,000					R	1,500,000
		(712872) Tshwane Electric	R	-					R	-
		(712941) Greening of Spo	R	-					R	-
		(713043) Upgrade visitor i	R	-					R	-
		(713049) New Clinic Lusa	R	1,500,000					R	1,500,000
		(712743) Replacement/M	R	454,546					R	454,546
		(712533) (VPUU) Mamel	R	-					R	-
		(712921) Nellmapius Tran	R	-					R	-
		(711713) Development of	R	27,500,000					R	27,500,000
		710005 (016) Upgrading/S	R	719,577					R	719,577
		710178 (005) Electricity fo	R	30,000,000					R	30,000,000
		(712591) Line 2B: Atterbu	R	-					R	-
		(712591) Line 2B: Atterbu	R	29,809,591					R	29,809,591
		(712591) BRT Line 2C-Lyn	R	1,432,032					R	1,432,032
		(712591) BRT Line 2C - Wa	R	24,525,240					R	24,525,240
		(712591) The Design, Sup	R	6,970,206					R	6,970,206
		(712591) Design, Supply, I	R	6,523,995					R	6,523,995
		(713052) Construction of	R	2,000,000					R	2,000,000
		(711335BR) Bronkhorstsp	R	812,636					R	812,636
		(712591) NMT Line 2B (Ha	R	-					R	-
		(712591) Denneboom Inte	R	42,180,000					R	42,180,000
		(712533) (VPUU) Construc	R	10,000,000					R	10,000,000
		(712279) Mamelodi-3 132	R	5,000,000					R	5,000,000
		(712279) Wildebees 400/	R	-					R	-
		710178 (006) Electricity fo	R	-					R	-
		710178 (015) Electricity fo	R	-					R	-
		(710178) Mahube Valley B	R	-					R	-
		Mamelodi Extension 6 ER	R	-					R	-
		(710556) USDG Funds: Re	R	7,750,000					R	7,750,000
		(712591) Taxi Industry Co	R	20,716,619					R	20,716,619
		(713051) Health Posts	R	-					R	-
		(712591) Menlyn Taxi Inte	R	16,000,000					R	16,000,000
		(712223) Flooding Backlog	R	1,000,000					R	1,000,000
		(712223) Flooding Backlog	R	1,000,000					R	1,000,000
		(712223) Flooding Backlog	R	2,000,000					R	2,000,000
		(713046) Upgrade of acce	R	265,749					R	265,749

		(713044) Provision of burial	R 1,492,294					R 1,492,294
		Mamelodi Extension 6 ER	R -					R -
	Education	Fred Magardie Primary School	R 28,808,000.00					R 28,808,000
	Education	Nellmapius Secondary No 1	R -					R -
	Education	Mamelodi East Pre-Vocational School For Learners W	R -					R -
	Education	Ribane-Laka Secondary School	R 7,846,000.00					R 7,846,000
	Education	Motheo-Foundation Primary School	R -					R -
	Education	Tsako Thaba Secondary School	R -					R -
	Health	New Eersterust Clinic Minor extension of recently bu	R 14,745,000.00					R 14,745,000
	Health	Park Homes	R 8,000,000.00					R 8,000,000
	Health	Old Mamelodi Hospital Maintenance (GDID)-Planned	R 4,377,000.00					R 4,377,000
	Human Settlements	Park City Mega Flisp	R 4,350,000.00					R 4,350,000
	Human Settlements	New Eersterus (Nantes) Ntirhisano project (Planning	R 1,000,000.00					R 1,000,000
	Human Settlements	Nellmapius/Willows	R 9,292,000.00					R 9,292,000
	Human Settlements	Heatherly East (Nellmapius Ext 22)( Mega - Tshwane	R 55,474,000.00					R 55,474,000
	Human Settlements	Heatherly East (Nellmapius Ext 22)(Infrastructure Se	R 10,000,000.00					R 10,000,000
	Human Settlements	Heatherly East (Nellmapius Ext 22)(Military Vetarans	R 5,547,000.00					R 5,547,000
	Human Settlements	New Eersterus Ext.2 - 8	R 11,095,000.00					R 11,095,000
	Human Settlements	Mamelodi Ext 22 (Remedial not reported in previous	R 11,095,000.00					R 11,095,000
	Human Settlements	Mamelodi Erf 29355 (COT)(Mamelodi Ext 5)	R 14,068,000.00					R 14,068,000
	Human Settlements	Mamelodi Ext 10	R 5,547,000.00					R 5,547,000
	Human Settlements	Heatherly East (Nellmapius Ext. 22)	R 19,539,000.00					R 19,539,000
	Human Settlements	Mamelodi Backyard Rental (COMPLETION)	R 5,547,000.00					R 5,547,000
	PRASA	Upgrade of existing storm water drainage network			R 3,000,000.00			R 3,000,000
	PRASA	Construction of a new railway line			R 150,000,000.00			R 150,000,000
	PRASA	Infrastructure upgrade and Retail development			R 20,000,000.00			R 20,000,000
	PRASA	Drainage upgrade and fencing			R -			R -
	PRASA	SAPS building renovations			R 1,500,000.00			R 1,500,000
Sub Total			R 299,766,720	R 216,330,000	R -	R 174,500,000	R -	R -
<b>Pretoria West</b>								
		(710026) Replacement Of	R 975,596					R 975,596
		(710229) Traffic Calming A	R 549,584					R 549,584
		(710276) Upgrading And E	R 2,500,000					R 2,500,000
		(710395) Traffic Lights/Tra	R 171,429					R 171,429
		(711335P) Heights Iscor Fe	R 15,000,000					R 15,000,000
		(711404) Replacement Of	R 1,250,160					R 1,250,160
		(711455) Renovation & Up	R 279,569					R 279,569
		(711862) Pre-paid Electric	R 35,000,000					R 35,000,000
		(712449) Insurance replac	R 8,000,000					R 8,000,000
		(712511) Flooding backlog	R 15,000,000					R 15,000,000
		(712522) Collector Road B	R 500,000					R 500,000
		(712681) Multipurpose De	R -					R -
		(712868) Ugrading of the	R 4,000,000					R 4,000,000
		(712872) Tshwane Electric	R -					R -
		(713040) Furniture and ec	R 2,500,000					R 2,500,000
		(713043) Upgrade visitor i	R -					R -
		(713003) Townlands, Mar	R -					R -
		(711712) Development of	R 27,500,000					R 27,500,000
		(710268) Computer Equip	R 10,500,000					R 10,500,000
		(710864) Lotus Gardens	R -					R -
		(710863) Fortwest 4&5 - E	R -					R -
		(710863) Lotus Gardens	R -					R -
		710005 (016) Upgrading/S	R 242,202					R 242,202
		710178 (005) Electricity fo	R 8,527,860					R 8,527,860
		(712591) Urban traffic cor	R 14,412,036					R 14,412,036
		(712591) Refurbishment a	R -					R -





		(710026) Replacement Of	R	3,431,048						R	3,431,048	
		(710878EK) Ekangala Bloc	R	-						R	-	
		(711455) Renovation & Up	R	384,616						R	384,616	
		(711562) Atmospheric Poll	R	1,000,000						R	1,000,000	
		(712872) Tshwane Electric	R	-						R	-	
		(712895) Upgrading of Ro	R	10,000,000						R	10,000,000	
		(712894) Upgrading of Ro	R	10,000,000						R	10,000,000	
		(711335BR) Bronkhorstsp	R	632,432						R	632,432	
		(710556) USDG Funds: Re	R	642,857						R	642,857	
		(713047) Revitalisation of	R	125,333,273						R	125,333,273	
	Education	Rethabiseng Primary No. 2	R	-						R	-	
	Health	Dark City CHC Additions and Rehabilitation to existin	R	500,000.00						R	500,000	
	Human Settlements	Rethabiseng Ext. 5	R	33,728,000.00						R	33,728,000	
Sub Total			R	151,424,225	R	34,228,000	R	-	R	-	R	185,652,225
Tshwane North												
		(710026) Replacement Of	R	2,675,562						R	2,675,562	
		(710878RM) Ramotse-Ma	R	2,000,000						R	2,000,000	
		(712503) Flooding backlog	R	6,000,000						R	6,000,000	
		(712504) Flooding backlog	R	8,000,000						R	8,000,000	
		(712507) Flooding backlog	R	8,000,000						R	8,000,000	
		(712515) Flooding backlog	R	-						R	-	
		(712520) Flooding backlog	R	-						R	-	
		(712523) Flooding backlog	R	8,000,000						R	8,000,000	
		(710865) Kudube 9	R	-						R	-	
		(710864) Kudube 9 Pump	R	30,000,000						R	30,000,000	
		710005 (016) Upgrading/S	R	47,940						R	47,940	
		(710863) Temba View X1	R	25,000,000						R	25,000,000	
		(710556) USDG Funds: Re	R	258,823						R	258,823	
		(710864) Hammanskraal e	R	-						R	-	
		(710863) Hammanskraal e	R	-						R	-	
		(713044) Provision of buri	R	470,965						R	470,965	
		(710864) Kudube 9 Bulk se	R	40,000,000						R	40,000,000	
		(713047) Revitalisation of	R	125,333,400						R	125,333,400	
	Agriculture and Rural Dev	Themba Satellite Office	R	-						R	-	
	Education	Klipdrift Primary School	R	-						R	-	
	Education	Itireleng Primary School	R	41,486,036.00						R	41,486,036	
	Education	Makgake Primary School	R	-						R	-	
	Education	Marokolong Primary	R	-						R	-	
	Education	Refithlile Primary School	R	-						R	-	
	Education	Sekampaneng Primary School	R	-						R	-	
	Health	Jubilee Hospital - Revitilization of hospital	R	2,000,000.00						R	2,000,000	
	Health	Mandisa Shiceka Clinic - Convert to CDC (NHI) P3	R	19,000,000.00						R	19,000,000	
	Health	Jubilee Hospital Maintenance-Planned, statutory and	R	6,735,000.00						R	6,735,000	
	Human Settlements	Steve bikoville Phase 2	R	-						R	-	
	Human Settlements	Kudube Unit 9 (COT)	R	7,766,000.00						R	7,766,000	
	Human Settlements	Ramotse Township	R	2,000,000.00						R	2,000,000	
Sub Total			R	255,786,690	R	78,987,036.00	R	-	R	-	R	334,773,726
Total			R	1,510,845,292	R	569,418,150.00	R	608,100,000	R	615,894,000	R	3,304,257,442



### Annexure 3: Template for Catalytic Projects (registration and Tracking)

Project Name			Total 2017/18	CCR	External Loans	State Grant	Provincial Grant	State Owned Entity
Project List			Funding Source (Total Project Value)					
Metro	No.of projects refelcted on pipeline	Example of catalytic projects	Total Value (R'm)	Municipal	Loan	Grant	Province	SOE
Centurion Areas								
City of Tshwane		(710411A2) Sunderl	R -	R -	R -	R -	R -	
City of Tshwane		Olievenhoutbosch x	R 30,000,000.00	R -	R -	R -	R -	
City of Tshwane		(712279) Monavoni	R 30,000,000.00	R -	R 30,000,000.00	R -	R -	
City of Tshwane		710178 (005) Electri	R -	R -	R -	R -	R -	
City of Tshwane		710178 (006) Electri	R -	R -	R -	R -	R -	
City of Tshwane		710178 (015) Electri	R -	R -	R -	R -	R -	
Education		Olievenhoutbosch Secondary No.2					R 4,405,000.00	
Human Settlements		Olievenhoutbosch Ext 27					R 27,737,000.00	
Human Settlements		Olievenhoutbosch Ext 36					R 19,539,000.00	
Human Settlements		Olievenhoutbosch Ext 60 (COT)					R 6,657,000.00	
Inner City								
City of Tshwane		Handheld terminals	R -	R -	R -	R -	R -	
City of Tshwane		(712969) Credit Con	R 10,000,000.00	R -	R 10,000,000.00	R -	R -	
City of Tshwane		(710213) One Integr	R 20,000,000.00	R -	R 20,000,000.00	R -	R -	
City of Tshwane		(712483) New Conn	R 28,312,146.00	R -	R -	R -	R -	
City of Tshwane		(712544) E-Initiative	R 13,000,000.00	R -	R 13,000,000.00	R -	R -	
City of Tshwane		(712950) Disaster Re	R 10,000,000.00	R -	R 10,000,000.00	R -	R -	
City of Tshwane		(712961) BPC and S	R 9,000,000.00	R -	R 9,000,000.00	R -	R -	
City of Tshwane		(712988) Informal T	R 6,900,000.00	R -	R 6,900,000.00	R -	R -	
City of Tshwane		Upgrading of Caledo	R 33,000,000.00	R -	R 33,000,000.00	R -	R -	
City of Tshwane		Upgrading of museu	R -	R -	R -	R -	R -	
City of Tshwane		(712978) Automatic	R -	R -	R -	R -	R -	
City of Tshwane		(710344) Implemen	R 15,000,000.00	R -	R 15,000,000.00	R -	R -	
City of Tshwane		Sub-project: Fire-arr	R 13,000,000.00	R -	R 13,000,000.00	R -	R -	
City of Tshwane		(712587) Disaster ris	R 3,000,000.00	R -	R 3,000,000.00	R -	R -	
City of Tshwane		(712989) Corporate	R 5,000,000.00	R 5,000,000.00	R -	R -	R -	
City of Tshwane		Capital Funded from	R 9,507,000.00	R -	R -	R 9,507,000.00	R -	
City of Tshwane		Mobile X-Ray Unit	R -	R -	R -	R -	R -	
City of Tshwane		mSCOA automation	R 60,000,000.00	R -	R 60,000,000.00	R -	R -	
City of Tshwane		Fuel Assets Undergr	R 5,000,000.00	R -	R 5,000,000.00	R -	R -	
Education		Pretoria Primary School					R -	
Education		Tshwane Secondary School					R -	
Health		Boikutsong CDC- Conversion of CHC into new Boikutsong CDC					R 36,200,000.00	
Human Settlements		Boikhutsong/ Orange Farm (Planning work)					R 1,100,000.00	
Human Settlements		Sunnyside					R 5,547,000.00	
Sports, Arts, Culture and Recreation		Women's Living Heritage Monument					R 34,985,000.00	
NDPW		Southern Gateway Precinct						R 350,000,000.00
NDPW		Government Boulevard						R 1,100,000.00
NDPW		Northern Gateway Precinct						R 100,000,000.00

NDPW		Capital Hill Precinct						R 50,000,000.00
NDPW		Civic Precinct						R 50,000,000.00
PRASA		Station upgrade						R8 000 000.00
PRASA		Rectify vertical clearance at Ketjen Street road-over-rail bridge and provide a stormwater network						R4 000 000.00
PRASA		Reconfiguration of luxury coach facility						R45 000 000.00
<b>Pretoria East</b>								
City of Tshwane		(710129) Major Stor	R -	R -	R -	R -	R -	
City of Tshwane		(710411F1) Baviana	R 30,000,000.00	R -	R 30,000,000.00	R -	R -	
City of Tshwane		(711213) Stormwater	R 1,000,000.00	R -	R -	R -	R -	
City of Tshwane		(712223) Flooding B	R -	R -	R -	R -	R -	
City of Tshwane		(712278) Upgrading	R 5,000,000.00	R -	R 5,000,000.00	R -	R -	
City of Tshwane		(712518) Flooding b	R 2,000,000.00	R -	R 2,000,000.00	R -	R -	
City of Tshwane		(712521) Collector R	R 200,000.00	R -	R 200,000.00	R -	R -	
City of Tshwane		(712612) Upgrading	R 1,500,000.00	R -	R 1,500,000.00	R -	R -	
City of Tshwane		New Clinic Lusaka	R 1,500,000.00	R -	R 1,500,000.00	R -	R -	
City of Tshwane		(VPUU) Mamelodi E	R -	R -	R -	R -	R -	
City of Tshwane		(711713) Developm	R 27,500,000.00	R -	R -	R -	R -	
City of Tshwane		710178 (005) Electr	R 30,000,000.00	R -	R -	R -	R -	
City of Tshwane		(712591) BRT Line 2	R 24,525,240.00	R -	R -	R -	R -	
City of Tshwane		Construction of Eme	R 2,000,000.00	R -	R 2,000,000.00	R -	R -	
City of Tshwane		(712591) Denneboo	R 42,180,000.00	R -	R -	R -	R -	
City of Tshwane		(VPUU) Construction	R 10,000,000.00	R -	R 10,000,000.00	R -	R -	
City of Tshwane		(712279) Mamelodi	R 5,000,000.00	R -	R 5,000,000.00	R -	R -	
City of Tshwane		(712279) Wildebees	R -	R -	R -	R -	R -	
City of Tshwane		710178 (006) Electr	R -	R -	R -	R -	R -	
City of Tshwane		710178 (015) Electr	R -	R -	R -	R -	R -	
City of Tshwane		Mahube Valley Exte	R -	R -	R -	R -	R -	
City of Tshwane		Mamelodi Extension	R -	R -	R -	R -	R -	
City of Tshwane		Health Posts	R -	R -	R -	R -	R -	
City of Tshwane		Menlyn Taxi Interch	R 16,000,000.00	R -	R -	R -	R -	
City of Tshwane		(712223) Flooding B	R 1,000,000.00	R -	R -	R -	R -	
City of Tshwane		(712223) Flooding B	R 1,000,000.00	R -	R -	R -	R -	
City of Tshwane		(712223) Flooding B	R 2,000,000.00	R -	R -	R -	R -	
City of Tshwane		Mamelodi Extension	R -	R -	R -	R -	R -	
Education		Fred Magardie Primary School					R 28,808,000.00	
Education		Nellmapius Secondary No 1					R -	
Education		Mamelodi East Pre-Vocational School For Learners With Special Education Needs (former Khuthalani S					R -	
Education		Ribane-Laka Secondary School					R 7,846,000.00	
Education		Motheo-Foundation Primary School					R -	
Education		Tsako Thaba Secondary School					R -	
Health		New Eersterust Clinic Minor extension of recently built clinic					R 14,745,000.00	
Health		Park Homes					R 8,000,000.00	
Health		Old Mamelodi Hospital Maintenance (GDID)-Planned, statutory and preventative maintenance					R 4,377,000.00	
Human Settlements		Park City Mega Flisp					R 4,350,000.00	
Human Settlements		New Eersterus (Nantes) Ntirhisano project (Planning)					R 1,000,000.00	
Human Settlements		Nellmapius/Willows					R 9,292,000.00	

Human Settlements	Heatherly East (Nellmapius Ext 22)( Mega - Tshwane East)				R 55,474,000.00	
Human Settlements	Heatherly East (Nellmapius Ext 22)(Infrastructure Services) (Mega - Tshwane East)(Road,Storm and Ele				R 10,000,000.00	
Human Settlements	Heatherly East (Nellmapius Ext 22)(Military Vetarans)				R 5,547,000.00	
Human Settlements	New Eersterus Ext.2 - 8				R 11,095,000.00	
Human Settlements	Mamelodi Ext 22 (Remedial not reported in previous years)				R 11,095,000.00	
Human Settlements	Mamelodi Erf 29355 (COT)(Mamelodi Ext 5)				R 14,068,000.00	
Human Settlements	Mamelodi Ext 10				R 5,547,000.00	
Human Settlements	Heatherly East (Nellmapius Ext. 22)				R 19,539,000.00	
Human Settlements	Mamelodi Backyard Rental (COMPLETION)				R 5,547,000.00	
PRASA	Upgrade of existing storm water drainage network					R 3,000,000.00
PRASA	Construction of a new railway line					R 150,000,000.00
PRASA	Infrastructure upgrade and Retail development					R 20,000,000.00
PRASA	Drainage upgrade and fencing					R -
PRASA	SAPS building renovations					R 1,500,000.00
<b>Pretoria West</b>						
City of Tshwane	(710276) Upgrading	R 2,500,000.00	R -	R 2,500,000.00	R -	R -
City of Tshwane	(712449) Insurance	R 8,000,000.00	R -	R 8,000,000.00	R -	R -
City of Tshwane	(712450) Insurance	R 5,000,000.00	R -	R 5,000,000.00	R -	R -
City of Tshwane	(712511) Flooding b	R 15,000,000.00	R -	R -	R -	R -
City of Tshwane	(712681) Multipurp	R -	R -	R -	R -	R -
City of Tshwane	(712868) Ugrading c	R 4,000,000.00	R -	R 4,000,000.00	R -	R -
City of Tshwane	(713003) Townlands	R -	R -	R -	R -	R -
City of Tshwane	(711712) Developm	R 27,500,000.00	R -	R -	R -	R -
City of Tshwane	(710268) Computer	R 10,500,000.00	R -	R 10,500,000.00	R -	R -
City of Tshwane	(710863) Lotus Gard	R -	R -	R -	R -	R -
City of Tshwane	(712591) Urban traf	R 14,412,036.00	R -	R -	R -	R -
City of Tshwane	Refurbishment and	R -	R -	R -	R -	R -
City of Tshwane	Automated Fare Col	R 10,000,000.00	R -	R -	R -	R -
Education	Hoerskool Pretoria-Wes					R 1,642,114.00
Education	Omar Ebrahim Primary School					R -
Education	Transoranje LSEN (Completion contract)					R -
Health	Atteridgeville CHC - New					R 200,000.00
Health	Kalafong Hospital - Nurses Res					R 15,000,000.00
Health	Kalafong Hospital - Revitilization-Complete revitalisation of entire Kalafong Hospital					R 1,000,000.00
Health	Weskoppies Hospital - Electro					R 750,000.00
Health	Weskoppies Hospital Refurbishment of Heritage Buildings					R 2,000,000.00
Health	Kalafong Hospital Maintenance Planned, statutory and preventative maintenance					R 5,446,000.00
Health	Weskoppies Hospital Maintenance (DID)-Planned, statutory and preventative maintenance					R 4,454,000.00
Human Settlements	Tembelihle (GPF)					R -
Human Settlements	Townlands 473 GPF Social Housing					R 5,547,000.00
Human Settlements	Atteridgeville Backyard Rental					R 2,774,000.00
Sports, Arts, Culture and Recreation	Atteridgeville Community Library					R 20,000,000.00
PRASA	Phase 1: Barracks					R 25,000,000.00
PRASA	Mitchell St to Saulsville					R 8,000,000.00
<b>Rosslyn Pretoria North</b>						
City of Tshwane	Provision, upgrade a	R -	R -	R -	R -	R -

City of Tshwane		(710116) Essential/	R -	R -	R -	R -	R -	
City of Tshwane		(712601) Standby Q	R -	R -	R -	R -	R -	
City of Tshwane		(712591) Wonderbo	R 122,499,503.00	R -	R -	R -	R -	
City of Tshwane		Extension of Rosslyn	R 2,000,000.00	R -	R 2,000,000.00	R -	R -	
City of Tshwane		(710864) Chantelle x	R 20,000,000.00	R -	R -	R -	R -	
Education		Akasia Primary School					R 2,487,000.00	
Health		Pretoria North Clinic - Additional consulting rooms					R 9,000,000.00	
Health		Masakhane Laundry-Planned,statutory and preventative maintainance					R 4,308,000.00	
Human Settlements		Orchards 59					R 1,500,000.00	
Human Settlements		Orchards 60					R 1,500,000.00	
Human Settlements		Chantell X39 (COT)					R -	
Human Settlements		Pretoria North (475)					R 11,095,000.00	
Sports, Arts, Culture and Recreation		Akasia Community Library					R 15,000,000.00	
PRASA		Wolmerton Station Upgrade					R 8,000,000.00	
PRASA		Wolmerton Depot Modernisation					R 165,697,000.00	
PRASA		Construction of a new overhead concourse station					R 8,000,000.00	
PRASA		Construction of a modern depot					R 165,697,000.00	
PRASA		Station improvement					R 4,000,000.00	
<b>Tshwane Far East</b>								
City of Tshwane		(710878EK) Ekangal	R -	R -	R -	R -	R -	
City of Tshwane		(712895) Upgrading	R 10,000,000.00	R -	R -	R -	R -	
Education		Rethabiseng Primary No. 2					R -	
Health		Dark City CHC Additions and Rehabilitation to existing CHC					R 500,000.00	
Human Settlements		Rethabiseng Ext. 5					R 33,728,000.00	
<b>Tshwane North</b>								
City of Tshwane		(710878RM) Ramots	R 2,000,000.00	R -	R -	R -	R -	
City of Tshwane		(712504) Flooding b	R 8,000,000.00	R -	R 8,000,000.00	R -	R -	
City of Tshwane		(712507) Flooding b	R 8,000,000.00	R -	R -	R -	R -	
City of Tshwane		(712515) Flooding b	R -	R -	R -	R -	R -	
City of Tshwane		(712520) Flooding b	R -	R -	R -	R -	R -	
City of Tshwane		(712523) Flooding b	R 8,000,000.00	R -	R 8,000,000.00	R -	R -	
City of Tshwane		(710878T) Temba W	R 50,000,000.00	R -	R -	R -	R -	
City of Tshwane		Kudube 9	R -	R -	R -	R -	R -	
City of Tshwane		(710864) Kudube 9	R 30,000,000.00	R -	R -	R -	R -	
City of Tshwane		Temba View X1 - Bu	R 25,000,000.00	R -	R -	R -	R -	
Agriculture and Rural Development		Themba Satellite Office					R -	
Education		Klipdrift Primary School					R -	
Education		Itireleng Primary School					R 41,486,036.00	
Education		Makgake Primary School					R -	
Education		Marokolong Primary					R -	
Education		Refithlile Primary School					R -	
Education		Sekampaneng Primary School					R -	
Health		Jubilee Hospital - Revitilization of hospital					R 2,000,000.00	
Health		Mandisa Shiceka Clinic - Convert to CDC (NHI) P3					R 19,000,000.00	
Health		Jubilee Hospital Maintenance-Planned, statutory and preventative maintenance					R 6,735,000.00	
Human Settlements		Steve bikoville Phase 2					R -	

Human Settlements	Kudube Unit 9 (COT)				R 7,766,000.00	
Human Settlements	Ramotse Township				R 2,000,000.00	
		R 885,535,925.00	R 5,000,000.00	R 333,100,000.00	R 9,507,000.00	R 920,812,150.00 R 758,600,000.00

		tin	silver	gold	platinum			
		Zero Fulfillment	Partial	Fulfillment	Exemplary			
BEPP Component	2017/18 - 2018/19 Standards	Level 0	Level 1	Level 2	Level 3			
		Score = 0	Score = 1	Score = 2	Score = 3			
Process								
BEPP Preparation	<b>Internal to the metro:</b> All necessary functional units in metro collaborated extensively on the BEPP e.g. Finance, Spatial Planning, IDP, Economic Development, Public Transport, Human Settlements, Governance and	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	There was consultation and collaboration with Housing; IDP; Finance. The City will arrange a session with all departments to understand the BEPP	A workshop with the relevant City Departments to understand the BEPP.
	<b>Public sector inclusiveness:</b> Relevant SOEs and national and provincial sector departments were meaningfully involved in the preparation of the BEPP	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Most relevant national and provincial and SOE stakeholders were involved. This sholud however be strengthened during the next cycle. It is propoposed that Province should engage with municipalities before projects are confirmed	Assistance to involve those departments and SOEs that had not participated.
	<b>Process compliance:</b> The deadlines for a l l BEPP requirements and submis s ions were met	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	3	Deadlines were met	
Process Total					5			

		tin	silver	gold	platinum			
		Zero Fulfillment	Partial	Fulfillment	Exemplary			
BEPP Component	2017/18 - 2018/19 Standards	Level 0	Level 1	Level 2	Level 3			
		Score = 0	Score = 1	Score = 2	Score = 3			
Content & Quality							Qualitative Comments	Support Requirements
A Introduction	<b>BEPP in relation to other Statutory Plans:</b> Standardised section on the role of the BEPP - a list of documents and references used in compiling the BEPP provided	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	A list of plans and documents referenced and included in the BEPP was provided. Relevant reference is made tyroughout the doument.	
	<b>BEPP in relation to other Statutory Plans:</b> A statement confirming the adoption of the BEPP by Council with a copy of the Council Resolution as an Annexure provided	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	To be submitted for approval end of May 2017 together with the IDP and Budget	
	<b>BEPP in relation to other Statutory Plans:</b> The extent to which the planning method and res ults of the BEPP will influence the new Council's statutory documents, such as IDPs	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Budget and IDP and BEPP are aligned in terms of strategy. The BEPP has assisted in prioritising the City's spending to ensure that the political vision and spatial vision are realised	
Process Total						6		

		tin	silver	gold	platinum		
		Zero Fulfillment	Partial	Fulfillment	Exemplary		
BEPP Component	2017/18 - 2018/19 Standards	Level 0	Level 1	Level 2	Level 3		
		Score = 0	Score = 1	Score = 2	Score = 3		
						Qualitative Comments	Support Requirements



<b>B Spatial Planning and project prioritisation</b>	Spatial Targeting: prioritising urban network and IZ planning and prioritisation: Map showing the Urban NETWORK with all Izs and township populations, including highlighted Prioritised IZ provided	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Maps with all the mentioned information included.	
	Spatial Targeting: prioritising urban network and IZ planning and prioritisation: Map provided showing: (i) Integration Zones; (ii) Identified economic nodes, segmented into emerging (urban hubs), declining (CBDs) and established employment nodes; and (iii) Prioritised marginalised areas segmented into townships, informal settlements and inner cities	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Maps with the required information provided	
	Spatial Targeting: prioritising urban network and IZ planning and prioritisation: Clear Statement of the prioritisation of the various integration zones in terms of the Intergovernmental Project Pipeline. Prioritised Integration Zone with the key precincts identified and prioritised for further planning	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Intergovernmental Pipeline alignment evaluated against city implementation. Attention to detailed precinct planning to be given during the next cycle. There is still a need for us to do precinct plans in the integration zone so that the project pipeline can be solid in future year	Explore from CSP if there is an appetite to assist in the development of precinct plans for Integration Zones
	Spatial Targeting: finalising urban network and IZ planning and prioritisation: Evidence of a Prioritised Integration Zone Plan consisting of: (i) IZ Spatial Logic (mapped); (ii) IZ targets (Residential, Community, Employment, Transport), (iii) prioritised precincts (IZ phasing); (iv) precinct targets (residential, community, employment, transport); (v) List of prioritised IZ-wide projects, with descriptions, high-level costings and mapped number references in the Inter-Governmental Project Pipeline format; (vi) Prioritised IZ-wide interventions (land release proposals, procurement proposals, proposed policy, regulations, incentives, further studies, operational efficiencies, specifically public transport, including alignment)	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	All mentioned categories are addressed in BEPP. Some need to become more detailed and focussed per IZ area. TO be developed during next cycle. There is still a need for the City to refine its targets, desired land uses and alignment with other spheres within the Intergovernmental stakeholders in other IZ besides the TRT lines	
	Spatial Targeting: prioritising urban network and IZ planning and prioritisation: Evidence of consultation with relevant provincial, national and SOE sectors (minutes and attendance registers of meetings)	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Some of the relevant government departments and SOEs have been consulted with regarding spatial targeting especially in the past. The new spatial targeting areas need to be confirmed with those who did not participate in this year's BEPP compilation.	Assistance to engage with all relevant departments and SOEs where challenges exist.
	Spatial Targeting: strengthening alignment of public transport and housing plans: Human Settlements demand projections, disaggregated by area and typology, incorporated.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Alignment with public transport and human settlement provision have been addressed.	
	Spatial Targeting: strengthening alignment of public transport and housing plans: Public Transport demand projections, disaggregated by area and mode, incorporated.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Different modes and demand analysis are addressed	

	Spatial Targeting: strengthening alignment and public transport and housing plans: Map provided showing Transport Plans compared to the top priority targeted areas (Integration Zones, Economic nodes, Marginalised Areas).	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Map showing relation between transport and priority areas have been provided.	
	Spatial Targeting: strenghtening alignment of public transport and housing plans: Map provided showing planned housing projects in relation to Integration Zones, prioritised marginalised areas and established employment nodes.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Maps showing relation between public transport routes and housing development areas have been provided.	
	Spatial Targeting: strenghtening alignment of public transport and housing plans: processes outlined towards modal alignment and integration within public transport networks.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	This has been addressed however details need to be determined during the next cycle.	
	Spatial Targeting: strenghtening alignment of public transport and housing plans: Description of required interventions to align planned housing and transport investment projects to the top priority targeted areas with clear time frames.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Details regarding interventions need to be confirmed and provided during next BEPP cycle.	The current engagements with the CSP on the housing approach for the City (Human Settlement Plan revision) will assist in developing this for the next cycle.
	Spatial Targeting: strenghtening alignment of public transport and housing plans: Showcasing of at least one Integration Zone demonstrating the alignment of public transport investments with catalytic development projects with a description of how this provides public transport access to specific and named housing projects in the area.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Information to address this have been provided in the BEPP however details need to be provided.	The current engagements with the CSP on the housing approach for the City (Human Settlement Plan revision) will assist in developing this for the next cycle.
	Spatial Targeting: Evidence of consultation with relevant provincial, national and SoE sectors (minutes and attendance registers of meetings) re spatial targeting and planning alignment.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Consultation with stakeholders have been done. This needs to be extended to others who did not participate.	Assistance to engage with all relevant departments and SOEs where challenges exists.
	Local Area Planning - Precinct Planning: Prioritised Precinct Plan consisting of the following: (i) Precinct Plan/Concept (mapped); (ii) Land Use mix (Residential, Community, Employment, Transport), (iii) List of prioritised projects, with descriptions, high level costings and mapped number references to the Inter-Governmental pipeline; (iv) Prioritised interventions (land release proposals, opportunities, risk mitigation activities, further studies, opertional efficiencies).	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Detailed precinct plans need to be confirmed and compiled during the next BEPP cycles.	
	Local Area Planning - Precinct Planning: Evidence of consultaiton with relevant provincial, national and SoE sectors (minutes and attendance registers of meetings) with regard to precinct planning.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Consultation with stakeholders have been done in some cases to local area planning level. This needs to be extended to others who did not participate. Information was gathered though email requests and no scheduled meeting took place	Assistance to engage with all relevant departments and SOEs where challenges exists.
	Local Area Planning - Precinct Planning: Table supplied indicating status of detailed planning/development of prioritised informal settlements.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Informal settlements have been addressed in the BEPP however the City will utilise an interdepartmental approach (following the NUSP approach) to develop a strategy for formalisation	



	Local Area Planning: Informal Settlements: Approved strategy for informal sector upgrading (that is based on a citizen-led planning and development approach that links the MSDF targets for the city to projects) incorporated clearly showing the prioritised upgrading projects and related allocations for medium-term funding.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Informal settlement upgrades have been discussed and information provided in the BEPP.	
	Local Area Planning: Marginalised Areas: Priority marginalised areas identified	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Marginalised areas are discussed in the document however they have not been prioritised	
	Local Area Planning: Marginalised Areas: Outline of the core elements of a strategy and programme to address prioritised marginalised areas, including programmes, projects and associated implementation plans included.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Specific strategy to address this needs to be developed and confirmed.	
	Local Area Planning: Economic Nodes: Table provided indicating at least three nodal categories (established, emerging and declining) with private sector project pipeline per node included.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Economic nodes have been identified and discussed in different sections of the document. No categorisation or private sector pipeline projects has been done at this stage	
	Local Area Planning: Economic Nodes: High level intervention strategy per three types of spatially targeted areas provided.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Official intervention strategy to be developed and confirmed.	
	Institutional Arrangements: Evidence of policy and regulatory instruments being put in place to enable the development vision in the land-use budgets, e.g. additional planning, policy, incentives, regulatory mechanisms, land release arrangements etc.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	The city is addressing this by developing relevant policies and instruments.	
Section B Total						31		

tin	silver	gold	platinum
Zero Fulfillment	Partial	Fulfillment	Exemplary
Level 0	Level 1	Level 2	Level 3
Score = 0	Score = 1	Score = 2	Score = 3

BEPP Component	2017/18 - 2018/19 Standards	Level 0	Level 1	Level 2	Level 3	Qualitative Comments		Support Requirements
Process								
<b>C</b> <b>Intergovernmental pipeline</b>	Adopting portfolio management and project preparation tools: Inter-governmental Project Pipeline shows alignment and co-ordination of project investment in the format provided in Annexure 2 to the Guidelines.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Intergovernmental pipeline analysis with regard to co-ordination and investment provided. Annexure provided.	
	Adopting portfolio management and project preparation tools : Prioritised catalytic projects identified per the prioritised spatially targeted areas presented as the Portfolio of Catalytic Projects in Annexure 3 of the Guidelines.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Catalytic projects identified and annexure provided	

	Intergovernmental project pipeline: Detailed process map and timelines for the preparation of the IDP and MSDF provided.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	The IDP Capital Budget and BEPP follows the approved IDP process plan. All documents are to be approved end of May 2017 by Council. The MSDF is not being updated currently. The process plan was sent to NT in September 2016. The IDP also contains project list from Gauteng province	
	Intergovernmental project pipeline: Confirmation that the BEPP method and results are incorporated into the IDP, MSDF and Budget.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	The IDP Capital Budget and BEPP follows the approved IDP process plan. All documents are to be approved end of May 2017 by Council. The MSDF is not being updated currently but the strategy of the MSDF is the basis for the city's spatial planning as indicated in the BEPP.	
	Intergovernmental project pipeline: Table presenting key areas of alignment between the BEPP, IDP and MSDF including UNS elements and project pipelines provided.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Key areas of alignment between BEPP and MSDF has been shown.	
	Spatial Budget Mix: High level allocation of capital budget to each of the three spatial targeting categories in terms of total capital budget from all funding sources provided.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	3	Analysis of capital budget in each space included in the BEPP.	
	Investment Strategy: Investment strategy for intergovernmental project pipeline in place.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Investment strategy indicated however to be strengthened with regards to Intergovernmental pipeline.	
	Institutional arrangements: Evidence of leadership and good governance required to drive change and build coalitions around the city's vision and programme.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	The elements of the city vision and how this translates in terms of projects have been indicated. The city's leaderships' commitment has been reflected in the budgeting process aligning budget with priority development areas.	
	Institutional arrangements: Evidence of intra-sectoral municipal coordination.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Departmental planning and spatial planning and depicted in the MSDF and therefore BEPP is mostly aligned this is especially clear in terms of the IRPTN.	
	Institutional arrangements: Evidence of municipal consultation with Provincial Government, SOEs and National Departments responsible for asset creation for service delivery directly to	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Consultation has happened but should however be focussed to address details with regard to development in priority areas. There were no scheduled meetings with SOEs	Assistance to engage with all relevant departments and SOEs where challenges exists.
Section C Total						18		

tin	silver	gold	platinum
-----	--------	------	----------

		Zero Fulfillment	Partial	Fulfillment	Exemplary			
BEPP Component	2017/18 - 2018/19 Standards	Level 0	Level 1	Level 2	Level 3			
		Score = 0	Score = 1	Score = 2	Score = 3			
Process							Qualitative Comments	Support Requirements
D Capital Funding	Spatial Budget Mix: Evidence of high level allocation of capital budget to each of the three spatial targeting categories in terms of total capital budget from all funding sources.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	3	Detail Capital budget analysis in priority spatial targeting areas included in BEPP	
	Capital Budget: Funding sources provided for each registered catalytic project as per the format of Annexure 3, including the following: Funding source identified and status of financial closure; indication of whether a project pre-feasibility / feasibility studies have been conducted; indication of project funding over the MTREF; identification of alternative funding sources, and status of financial closure; highlighting of projects for which	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Identification of alternative funding sources etc are lacking however will be addressed in following years.	
	Capital budget: Demonstration of how the budget content and processes for metros, national and provincial government and SOEs will be aligned to BEPP content and processes and how this will be monitored in terms of priority projects in the Inter-Governmental	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	There is some alignment for projects that were received. Detailed discussions for better alignment needs to held and inclusion of other IGR entities.	
	Capital budget: Breaking down of the current expenditure in each prioritised Integration Zone into IZ-wide projects and prioritised IZ precinct projects.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Breakdown provided	
	Institutional arrangements: Evidence of risk mitigation strategies in place and being implemented.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	0	Need to be addressed. There is no risk plan	Through CSP, assistance is required to develop this.
	Operating budget: Identification of operating budget implications reflected and sources.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Operating budget has been addressed on a high level. Detail need to be included in next BEPP however the City's MSCOA compliant budget gives an indication	
Section D Total						8		

		tin	silver	gold	platinum		
		Zero Fulfillment	Partial	Fulfillment	Exemplary		
BEPP Component	2017/18 - 2018/19 Standards	Level 0	Level 1	Level 2	Level 3		
		Score = 0	Score = 1	Score = 2	Score = 3		
Process							
E Implementation	Land release strategy: Evidence of an approach to land release for top priority projects with land implications.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	The land release process followed in the City has been outlined but there are no details on how this will assist with the BEPP. A Land Release Strategy is being developed, which should assist in closing this gap in the future.

	Procurement approach: Evidence of a procurement approach for top priority projects.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Procurement have been addressed but details for specific areas need to be clarified.	
	Institutional arrangements: BEPP component city implementation structures in place.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Formal structures to be set in place	
	Institutional arrangements: BEPP component inter-governmental implementation structures in place.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Formal structures to be set in place	
Section E Total						4		

tin	silver	gold	platinum
Zero Fulfillment	Partial	Fulfillment	Exemplary

BEPP Component	2017/18 - 2018/19 Standards	Level 0	Level 1	Level 2	Level 3		Qualitative Comments	Support Requirements
Process								
F Urban Management	Urban management: Evidence of adoption of a precinct management approach for IZ precincts and growth nodes.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Urban management approach have been discussed tyis shold however be developed rough a Urban Management Framework	
	Urban management: Evidence of key land use management interventions.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Discussion on urban management approach	
	Urban management: Evidence of a private sector investment approach, including alignment and restructuring proposals for incentives.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	0	To be addressed	
	Urban Management: Analysis and mapping of the following data provided: (i) Updated data on economic performance and demographic shifts ; (ii)Disagregaged economic data, showing areas of growth and decline at a sub-metropolitan level, (iii) mapping of areas of relative growth and decline in employment,	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Growth areas indicated	
	Transport management: Evidence of transport operations and management approach being applied to Integration Zone routes.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	2	Transport integration has been demonstrated	
	Institutional arrangements: Evidence that precinct management entities are in place and operational.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	0	The City does not have this and will explore this in future	Capacity is needed to establish this with the priority given to the Inner City

	Institutional arrangements: Evidence of a clear linkage between municipal service delivery and precinct management entities.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	0	The City does not have this and will explore this in future	Capacity is needed to establish this with the priority given to the Inner City
Section F Total						6		

tin	silver	gold	platinum
Zero Fulfillment	Partial	Fulfillment	Exemplary

BEPP Component	2017/18 - 2018/19 Standards	Level 0	Level 1	Level 2	Level 3		Qualitative Comments	Support Requirements
		Score = 0	Score = 1	Score = 2	Score = 3			
Process								
<b>G Institutional Arrangements &amp; Operating Budget</b>	Cross-cutting Institutional arrangements: Evidence that transversal city implementation structures are in place.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Although this has not been formalised, a core team between City Strategies, Housing and Human Settlements, Finance and Transport Planning	
	Cross-cutting Institutional arrangements: Evidence that transversal inter-governmental implementation structures are in place.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	0	This is not in place however discussions with Gauteng Planning Commission will lead to the establishment of this in Q1 of 2017/18	
	Consolidated operating budget: Provision of a high- level description of the Operating Budget, with specific reference to the BEPP Sections.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	0	This is not in place. The focus has been on getting an MSCOA ready budget. Fous will be on this next financial year	
Section G Total						1		

tin	silver	gold	platinum
Zero Fulfillment	Partial	Fulfillment	Exemplary

BEPP Component	2017/18 - 2018/19 Standards	Level 0	Level 1	Level 2	Level 3		Qualitative Comments	Support Requirements
		Score = 0	Score = 1	Score = 2	Score = 3			
Process								
<b>H Reporting and Evaluation</b>	Baselines: Baseline data presented for city indicators.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	There are some baselines however, more will be collated moving forward	
	Performance: Historical performance (where appropriate) provided for city indicators.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	0	The 2017/18 financial year will see City Planning monitoring the implementation of these indicators systematically	
	Targets 1: Targets set for city reported indicators.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Yes. These are part of Annexure 1	
	Targets 2: Targets set for nationally reported indicators.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	0	The City does not set indicators for national indicators	NT needs to pull this function on behalf of the cities and share targets and reported information with Cities for monitoring

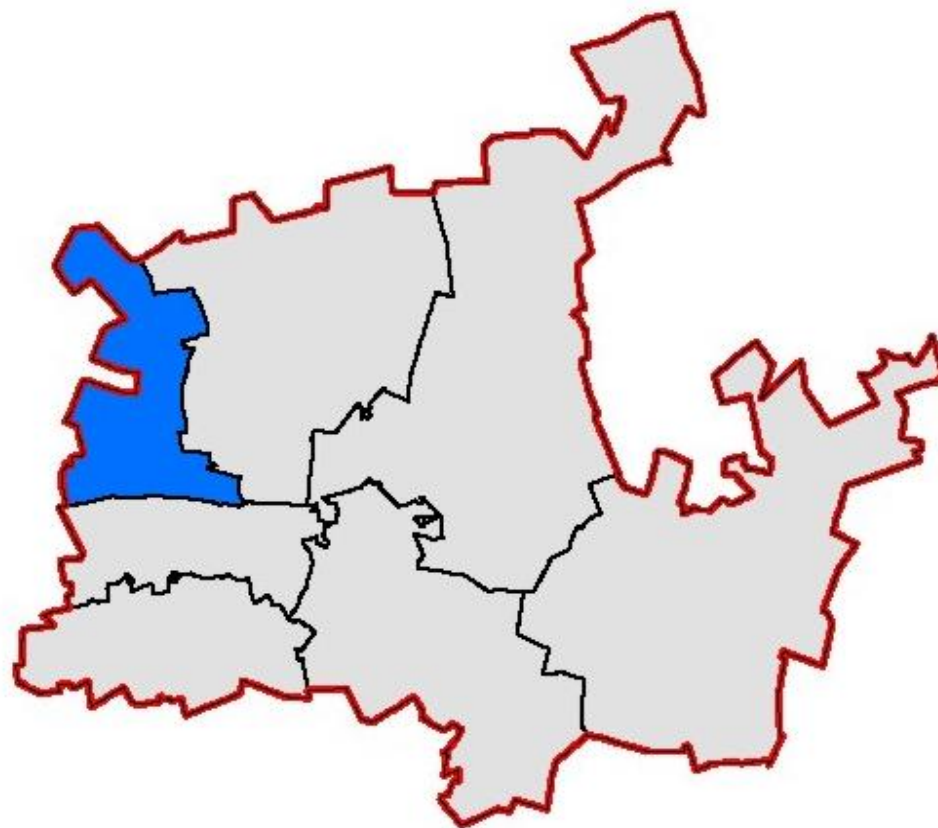
BEPP Component	2017/18 - 2018/19 Standards	Level 0	Level 1	Level 2	Level 3		Qualitative Comments	Support Requirements
		Score = 0	Score = 1	Score = 2	Score = 3			
CSIP support in relation to support needs identified in the BEPP	Comprehensive CSIP in place for the metro.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	Yes. This is in place and is coordinated by Roland Hunter. All projects are on target	
	A close match between gaps in the BEPP and Support Projects that have been requested by the metro, or CSIP projects that are offered to the metro.	No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard	L2 Plus exceeds standard	1	This is not applicable to the City	
						2		
	BEPP Support Total							

BEPP Component	Component Score	No. of Component Elements	Maximum Component Score Possible	Unweighted %	Component Weighting %	Weighted Score	Component Classification: tin/silver/ gold/ platinum	Zero Fulfillment	Partial Fulfillment	Fulfilled
								No evidence of fulfillment of standard	Tangible evidence of partial fulfillment of standard	Tangible and complete evidence of fulfillment of standard
								Level 0	Level 1	Level 2
Section A: Introduction	6	3	9	67%	3%	0.02		0	1-3	4-6
Section B: Spatial Planning and Project Prioritisation	31	22	66	47%	25%	0.117424242		0	1-24	25-50
Section C: Intergovernmental Project Pipeline	18	10	30	60%	30%	0.18		0	1-10	11-24
Section D: Capital Funding	8	6	18	44%	8%	0.035555556		0	1-8	9-14
Section E: Implementation	4	4	12	33%	10%	0.033333333		0	1-5	6-9
Section F: Urban Management	6	7	21	29%	12%	0.034285714		0	1-7	8-16
Section G: Institutional Arrangements & Operating Budget	1	3	9	11%	7%	0.007777778		0	1-3	4-6
Section H: Reporting and Evaluation	3	6	18	17%	5%	0.008333333		0	1-8	9-14
Total Score	79	61	183	308%	100%	0.436709957	0	0	1-40	41-69

Exemplary
L2 Plus exceeds standard
Level 3
7-9
51-66
25-30
15-18
10-12
17-21
7-9
15-18
70-100



## SPATIAL DEVELOPMENT FRAMEWORK 2017 REGION 1



## TABLE OF CONTENTS

<b>ABBREVIATIONS</b>	iii	2.10 ENVIRONMENTAL STRUCTURING CONCEPT	25
<b>GLOSSARY OF TERMS</b>	v	2.10.1 Heritage and Cultural Sites	21
<b>PART ONE: INTRODUCTION</b>	1	2.10.2 Open Space and Conservation Areas	21
1.1 BACKGROUND	1	2.10.3 Rural Management	<b>23</b>
1.2 LEGISLATIVE FRAMEWORK	1	<b>PART THREE: REGIONAL ANALYSIS</b>	
1.3 APPROACH AND METHODOLOGY	2	3.1 LOCALITY	26
1.4 THE USE OF THIS DOCUMENT	2	3.2 AREA	26
<b>PART TWO: METROPOLITAN CONTEXT</b>	3	3.3 DEMOGRAPHIC INFORMATION	27
2.1 NATIONAL DEVELOPMENT PLAN; 2014	4	3.4 REGIONAL CHARACTERISTICS	29
2.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011	4	3.5 STRUCTURING ELEMENTS	29
2.3 GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013	5	3.6 ECONOMIC BASE	28
2.4 THE SPATIAL VISION OF THE CITY	7	3.7 PHYSICAL ENVIRONMENT	28
2.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK	7	3.7.1 Natural Structuring Elements	31
2.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY	8	3.7.2 Strategic Land Uses	31
2.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN	8	3.7.3 Nodes	31
2.8 THE CITY STRUCTURE	10	3.7.4 Mixed Use Activity Areas	31
2.8.1 Hierarchy of Nodes	10	3.7.5 Residential Characteristics	31
2.8.2 Specialised Activity Areas	12	3.7.6 Movement and Transport Systems	32
2.8.3 Growth Management	12	3.7.6.1 Road Network and Private Transport	32
2.8.4 Urban Edge	13	3.7.6.2 Public Transport	33
2.8.5 Tshwane Retail Strategy	13	3.7.7 Services Infrastructure	33
2.9 MOVEMENT AND CONNECTIVITY	14	3.8 KEY ISSUES AND S.W.O.T ANALYSIS	33
2.9.1 Urban Form and Transport Integration	15	3.8.1 Strengths	33
2.9.2 Efficient Metropolitan Movement System	17	3.8.2 Weaknesses	34
		3.8.3 Opportunities	34
		3.8.4 Threats	34
		3.8.5 Role and Function	34

**PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK**

4.1	INTRODUCTION	36
4.2	METROPOLITAN NODES	36
4.2.1	Akasia Metropolitan Core	36
4.2.2	Pretoria North/ Rainbow Junction Metropolitan Core	36
4.2.3	Mabopane /Soshanguve Urban Core	40
4.3	REGIONAL NODES / LOCAL NODES	37
4.4	INDUSTRIAL NODES	39
4.4.1	Rossllyn/Klerksoord	39
4.4.2	Ga-Rankuwa Industrial	39
4.4.3	Mabopane Industrial	
4.5	FUNCTIONAL ROAD CLASIFICATION AND ACTIVITY MATRIX	40
4.6	DEVELOPMENT GUIDELINES	40
4.7	RESIDENTIAL	41
4.7.1	Concentration Zones	51
4.7.2	Linear Zones (Corridors and Spines)	53
4.7.3	Suburban Densification Zones	54
4.7.4	Low-Density Zones	54
4.7.5	Rural Divisions	55
4.7.6	Human Settlements	56
4.8	MOVEMENT SYSTEMS	58
4.8.1	RSDF movement system proposals	58
4.8.1.1	Rail	58
4.8.1.2	Road network	59
4.8.1.3	Bus Rapid Transit (IRPTN System)	60
4.9	RURAL AREA	61
4.9.1	Major Rural Roads	61
4.9.2	Urban Edge	61
4.9.3	Development Edge	62
4.9.4	Future Urban Development Areas	62
4.9.5	Management Zones	63
4.9.6	Agricultural High Potential Areas	63

4.9.7	Sensitive Protected Areas/Biodiversity Zone	63
4.9.8	Sensitive Ridge Areas	64
4.9.9	Heritage and Cultural Protected Areas	64
4.9.10	Tourism Potential Places/Areas	64
4.9.11	Conservancies	64
4.9.12	Game and Nature Reserves	64
4.9.13	Mines and Places of Manufacturing	65
4.9.14	Human Settlements	65
4.9.15	Community Service Centres	65
4.10	OPEN SPACE AND ENVIRONMENTAL AREAS	67
4.11	SOCIAL FACILITY PLANNING	70

**PART FIVE: DETAIL PRECINCT PLANS**

5.1	EXISTING PRECINCT PLANS	71
5.1.1	Pretoria North Spatial Development Framework, 2006 (Revised 2017)	33
5.1.2	Akasia Metropolitan Urban Core (revised 2017)	78
5.1.3	Mabopane Station Area Urban Development Framework	88
5.1.4	Development Framework for the Eldorette, Heartherdale and Winternest Agricultural Framework (Revised 2017)	12
5.1.5	Development Framework for the Ga-Rankuwa CBD _ and Ga-Rankuwa Gateway	11
5.1.6	Rama City	
5.1.7	Development Framework for the Kopanong Emerging Node	
5.1.8	Development Framework and Master Plan for the Tshwane Automotive City	

5.2	PLANNING POLICY RATIONALISATION	79
-----	---------------------------------	----

PART SIX: REFERENCE	81
---------------------	----

**BRT**

- Bus Rapid Transit

**CBD**

- Central Business District

**CDS**

- City Development Strategy

**COT**

- City of Tshwane

**EMF**

- Environmental Management Framework

**GSDF**

- Gauteng Spatial Development Framework

**GITP**

- Gauteng 25-Year Integrated Transport Master Plan

**IDF**

- Integrated Development Framework

**IDP**

- Integrated Development Plan

**ITP**

- Integrated Transport Plan

**LRT**

- Light Rail Transport

**LSDF**

- Local Spatial Development framework

**MSA**

- Municipal Systems Act 32 of 2000

**MSDF**

- Metropolitan Spatial Development Framework

**NDP**

- National Development Plan, Vision for 2030.

**NDPG**

- Neighbourhood Development Partnership Grant

**NMT**

- Non- Motorised Transport

**RSDF**

- Regional Spatial Development Framework

**SDF**

- Spatial Development Framework

**SPLUMA**

- Spatial Planning and Land Use Management Act, 16 of 2013.

**SPTN**

- Strategic Public Transport Network

**TOD**

- Transport Orientated Development

**TOSF**

- Tshwane Open Space Framework

**ZOC**

- As per City Development Strategy: Zone of Choice

**ACTIVITY NODES**

- Areas of concentration of mixed land uses.

**ACTIVITY SPINES**

- Mobility routes connect a number of nodes or mixed use areas, serving as the main public transport channels of the region. These routes could support linear development although not necessarily continuous along its length. Higher order land uses should be accommodated in the nodes, but lower order land uses could develop in a linear fashion subject to alternative access opportunities. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes.

**ACTIVITY STREETS**

- Local collector roads supporting lower order land uses in a linear fashion along its length. Direct access to land uses is provided compromising mobility for activity. Development along activity streets should be permitted in accordance with a local spatial development framework.

**CAPITAL CORE**

- The Tshwane Inner city is identified as the Capital Core as it is the city's first order node amongst all metropolitan nodes. Traditionally, the inner city is also the Central Business District (CBD) of major cities. Tshwane is no different.

Historically, the inner city was the geographic heart and centre of what is now the Tshwane area. Over time, though, due to the extension of the Tshwane boundaries, the Inner City is no longer geographically central, but still plays a very important role with regards to the concentration of retail, office and government buildings to be found in the area.

The Capital Core must:

- Be the focal point for housing government departments
- Be developed to a higher than average density, supporting all principles of smart growth.

**CITY OF TSHWANE METROPOLITAN MUNICIPALITY LAND USE MANAGEMENT BY –LAW**

- To give effect to “Municipal Planning” as contemplated in the Constitution of the Republic of South Africa, 1996, and in so doing to lay down and consolidate processes and procedures, to facilitate and make arrangements for the implementation of land development and land development applications, spatial planning and a Land Use Scheme within the jurisdiction of the City of Tshwane, in line with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013), to provide for the processes and procedures of a Municipal Planning and Appeals Tribunal and to provide for matters incidental thereto.

**COMPACT**

- Compact urban form increases efficiency in the way people can use the city and in the way the city is managed. More people live in a smaller area in a compact city and this higher density allows for efficient provision of public transport, social and other services. The opposite of a compact city is urban sprawl.

**CONCENTRATION ZONES**

- The Concentration Zones are the primary focus areas for high density, medium to high-rise residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

**COT**

- City of Tshwane.

**DENSIFICATION**

- Increase of residential density following the guidelines of the Compaction and Densification Strategy, May 2005.

**EMERGING NODES**

- Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban

areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

#### INDUSTRIAL USES

- As referred to on the framework plans includes: light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

#### INFILL

- The development of undeveloped or underdeveloped land within a developed urban area with infrastructure available.

#### INNER CITY

- An area in the City of Tshwane comprising the Pretoria Central Business District and surrounding residential areas.

#### INTENSIFICATION

- The process of intensifying activities or land use by increasing floor area, height or number of activities.

#### LIVABLE STREETS

- Liveable Streets are defined as streets for everyone that are planned, designed, and operated to enable a network of safe access for all users including pedestrians, bicyclists, and transit riders

#### LINEAR ZONES

- As per Compaction and Densification Strategy referring to activity spines and linear channels forming a lattice of movement.

#### LOWER ORDER LAND USES

- Land uses that are not usually associated with high impact on the surrounding environment and with low traffic generating characteristics.

#### METROPOLITAN NODES

These are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the Tshwane context, Metropolitan nodes are those nodes within the City (economically) benefiting primarily from the investment of the private sector. Equally important is

that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment. Such localities are also where the most extensive land use rights, including densities, are likely to be supported, in line with the growth management strategy.

#### MIXED USES

- Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional etc. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. Mixed uses may refer to retail at street level, institutional on the floor above and residential on the upper floors, or only one use per erf. Principles regarding retail, commercial and industrial uses / rights are still applicable as indicated in this document. Mixed land use in an industrial area may include industry, commercial and retail uses.

#### NODES

- A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport facilities such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

#### OFFICE USES

- These areas may accommodate land uses such as offices, retail industries, small places of refreshment, fitness centres, hairdressers, nail bars, medical consulting rooms, medical workshops such as a dental technician, prosthetist, orthodontist, pathologists, optometrist technician and other businesses such as a beauty salon, pet salon, beauty/health spa, funeral undertaker, place of instruction and uses subservient to the main use. Land uses will be considered on merit, shall be compatible to the surrounding area and shall focus on serving the local community.



## PUBLIC TRANSPORT FACILITIES

- Including train stations, taxi and bus facilities with ancillary uses.

## SUBURBAN DENSIFICATION

- As per Densification and Compaction Strategy: Residential densification in areas that are not located in concentration zones of along linear development spines.

## SUSTAINABLE DEVELOPMENT

- Development that has integrated social, economic and environmental factors into planning, implementation and decision-making, so as to ensure that it serves present and future generations (In terms of SPLUMA Objectives)

## SUSTAINABLE HUMAN SETTLEMENTS

- The term ‘sustainable human settlement’ refers to a spatial concept that has two areas of emphasis: 1) human 2) sustainable. In terms of SPLUMA Principles

“The human-centred approach emphasises that a central purpose of planning is to ensure that the developmental needs and activities of people living in settlements are catered for and, in particular, that Opportunities for people to achieve their full potential are maximised through their own efforts. This approach, rather than being purely cost- or technology-driven, is people-driven and democratic”. It makes such settlements socially, politically and economically sustainable. But there is also the dimension of environmental sustainability.

## TRANSPORT-ORIENTATED DEVELOPMENT (TOD)

- Transport-oriented development (TOD) is a mixed-use residential or commercial area designed to maximise access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (i.e. a train station, metro station, BRT stop, or taxi rank), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs are generally located within a radius of 500 to 700 m from a transit stop, as this is considered to be a convenient distance for pedestrians.

## TRANSPORT CORRIDORS

- For the purpose of this RSDF, these routes are defined as the approved BRT routes within Region 3. They are regarded as the main public transport channels of the region, which implies the prioritising of public transport and non – motorised transport over private transport. Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate. Densification along these corridors should be encouraged to maximise the public transport opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.

## URBAN CORES

- Former township areas were developed as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme Grant (NDPG) is a nationally funded programme that aims to address the improved quality of environment in urban cores.

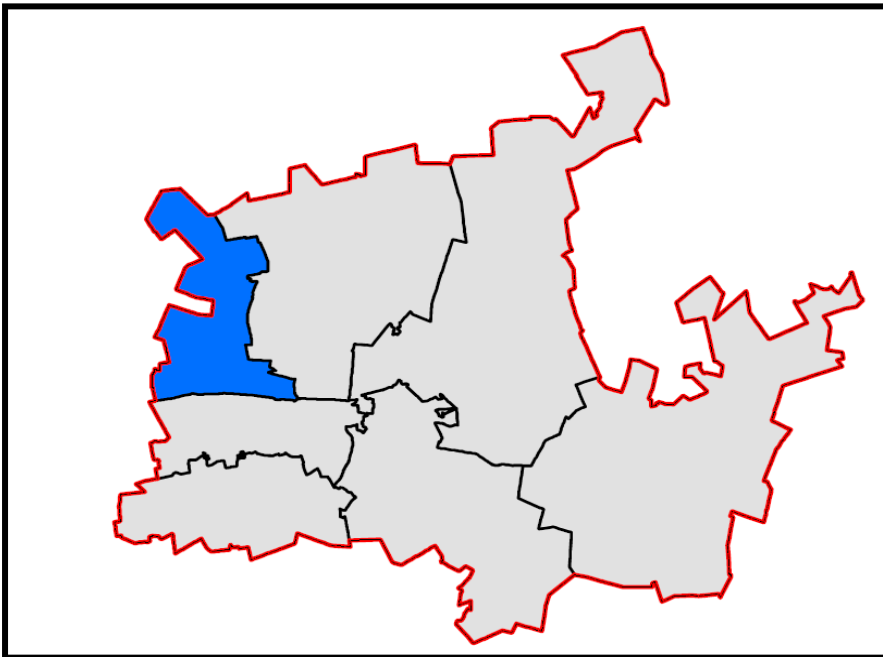
## 1. INTRODUCTION

### 1.1 BACKGROUND

The City of Tshwane (COT) embarked on processes to compile seven Regional Spatial Development Frameworks (RSDFs) for the administrative planning regions of the metropolitan area in 2011.

The RSDFs needed to be inter-linked and also support the Tshwane Metropolitan Spatial Development Framework (MSDF) of 2017 as well as the Tshwane City Development Strategy (CDS), Tshwane Compaction and Densification Strategy (2005) and Tshwane Open Space Framework.

This RSDF for Region 1 was therefore prepared within the context of the MSDF, the CDS and in support of the other RSDFs.



### 1.2 LEGISLATIVE FRAMEWORK

- Spatial Planning and Land Use Management Act 16 of 2013
- The Municipal Systems Act (MSA), 2000 (Act 32 of 2000) determines that a municipality must adopt a framework for integrated development in its area in the form of an Integrated Development Plan (IDP) (Section 27).
- A Spatial Development Framework, which guides and informs all development forms part of the IDP (Section 35 (2)).
- The Gauteng Planning and Development Act, 2003 (Act 3 of 2003) determines that municipalities must formulate spatial development frameworks for their areas (Section 31 and 32).
- The content of these plans “shall be in the form of maps or a map together with explanatory report of the desired spatial form of the municipality”.

A Spatial Development Framework must:

- Indicate where public and private development infrastructure investment should take place.
- Indicate desired development and land use patterns for different areas.
- Indicate where development of particular land uses should be discouraged or restricted.
- Provide broad indication of the areas where priority spending should take place.
- Shall provide guidelines for development and land use decision-making by the municipality.

This Regional Spatial Development Framework was prepared in accordance with the above mentioned provisions.



### 1.3 APPROACH AND METHODOLOGY

The approach to the preparation of the RSDF was based on the following approved policies and plans:

- National Development Plan; 2014
- Gauteng Spatial Development Framework: 2011.
- Gauteng 25- Year integrated Transport Master Plan: 2013
- The MSDF objectives, vision and supporting strategies as well as development issues were used to inform the role and function of the region. (MSDF 2011).
- City of Tshwane, Rapid Transit (TRT): Spatial Development Policy: Densification and Intensification Guidelines, 2014 .
- The City of Tshwane Comprehensive Integrated Transport Plan: 2016
- The City of Tshwane Bioregional Plan: 2016.

The framework was also based on best practices applied internationally on the development of MSDF / RSDF. See references used at the end of the document in the compilation of the framework. Further this framework has been compiled inter alia in terms of the relevant provincial legislation and the Spatial Planning and Land Use Management Act, (Act 16 of 2013).

The RSDF 2017: Region 1 was prepared in accordance with the following mentioned principles.

- Indicate where densification should take place and promote economic and social inclusion. (SPLUMA , Objectives and Principles 7(a))
- Indicate how urban regeneration should take place in the Region in order to stimulate land markets (SPLUMA, Objectives and Principles 7(a)).
- Indicate where public and private development infrastructure investment should take place. (SPLUMA , Objectives and Principles 7(a))
- Indicate desired development and land use patterns in the Region 1 in order to achieve mixed income housing, community, educational and job opportunities that support the Bus Rapid Transit system. SPLUMA , Objectives and Principles 7(a))

- Provide for the opportunity to walk and cycle in the Region and move away from car orientated planning.
- Provide broad indication of the areas where priority spending should take place in the Region and what the impact on services will be. (SPLUMA , Objectives and Principles 7(a))
- Provide guidelines for development and land use decision-making by the municipality in the Region 1.

This framework obtains its guidelines, objectives and principles from the relevant National, Provincial and Local Planning Policies as prescribed by the Spatial Planning and Land Use Management Act (Act 16 of 2013). In the following section the different policies and guidelines are discussed that are applicable to spatial planning.

### 1.4 THE USE OF THIS DOCUMENT

As a point of departure in terms of the governance model adopted by Council, it should be understood that no decision on site specific development applications can have the effect of materially amending the RSDFs or undermine the IDP with reference to section 35 of the MSA.

The burden on a local authority in the preparation of the IDP and the SDFs with regard to public participation limits the power of a local authority to, without proper consideration, amend, undermine or redirect policy. The citizenry within the jurisdiction of the City of Tshwane has the right to be able to rely on the content of the IDP and SDFs and any amendment thereto should not be taken lightly.

In particular, no development proposal may undermine the budgetary provisions contained in the IDP read with the SDF. Should such development proposals have merit, they should be tested against the overall objectives of the policy documentation and formally incorporated to ensure integrated, funded and sustainable development takes place, that reach the objectives set out in the policy documents. The RSDFs indicate where and how discretionary powers are granted to deal with applications on merit. A merit deviation should be based on **specific criteria** or **threshold requirements**, which requirements shall in the sole opinion of the local authority be complied with, in order to deviate or amend the RSDF or any component thereof. Keeping in mind that if a proposal is so material as to

impact on the overall objectives of the SDFs or IDP, that it can only be formally amended by the legislative body of Council, with public participation.

## **MAPS AND PRINCIPLES**

The different principles as indicated in Part 4 must be interpreted per Map and against the principles as specified in the document. For example density applications will be evaluated according to the density map and accompanying principles as specified in Part 4. Alternative land uses and activities will be evaluated according to the movement and activity map and accompanying principles. The composite map at the end of the document must only be regarded as a schematic representation of the principles.

## **INFRASTRUCTURE**

Development proposals, whether in line with these documents or on merit, should only be supported if infrastructure to the satisfaction of the local authority can be provided in line with the overall IDP. This should include the provision of infrastructure by developers that may have an impact on the operational budget of Council. The availability of infrastructure shall not be regarded as sufficient support for a development proposal. The prioritisation and provision of infrastructure is within the sole discretion of the local authority and shall be considered and evaluated based on accumulative impact and prioritisation of resources.

## **TRANSITIONAL ARRANGEMENTS**

In order for the City of Tshwane to ensure that pending applications that were submitted in line with the rescinded MSDF/SDFs or RSDFs to be substituted by the reviewed MSDF and RSDFs, to be effectively and efficiently evaluated against policy the following transitional measures shall apply:

Any development application which relied on the provisions of the MSDF or RSDFs in support of consideration of the said applications, that are pending before the City of Tshwane at the time of the adoption by Council of the reviewed MSDF and RSDFs, shall be dealt with as if these revised documents have not been adopted.

These pending development applications shall be finalised based on the policy provisions contained in the rescinded MSDF and RSDFs or any

component of these documents; provided that where applications are pending before the local authority and the reviewed MSDF and RSDFs are in support of an application that the local authority, in their sole discretion and interpretation of whether in support or not, the application may be considered against the reviewed MSDF's and RSDF's. This provision shall not be applicable if the application by evaluation against the reviewed MSDF and RSDFs shall have the result of negatively impacting on the rights of an applicant.

The RSDF is not the sole mechanism in determining the suitability of any potential change in land use, but should be used in conjunction with requirements as may be determined by infrastructure and other relevant aspects that may not be contained in the RSDF.

## 2. PART 2: METROPOLITAN CONTEXT

### 2.1 POLICY FRAMEWORK

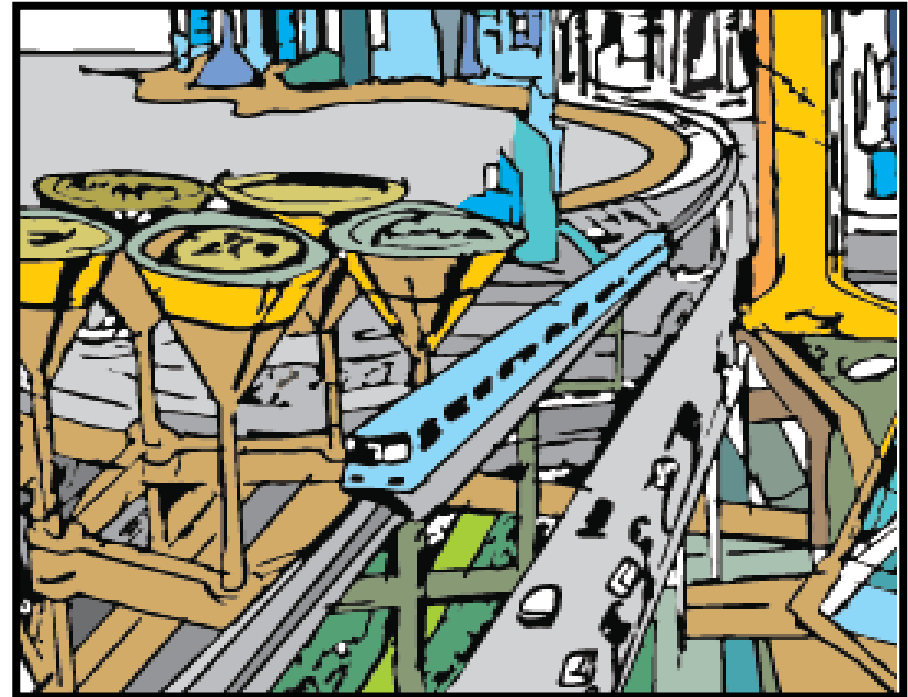
#### 2.1.1 NATIONAL DEVELOPMENT PLAN; VISION FOR 2030: 2014

The overarching principles for spatial development in terms of the National Development Plan (pg. 246) is that all spatial development should conform to the following principles:

- **Spatial justice** – Unfair allocation of public resources between areas must be reversed and the confining of particular groups to limited space must be abandoned. The **increasing of urban population density** while improving the liveability of the cities and providing affordable public transport, is seen as complementary strategies to this principle (pg. 16). Transportation networks are seen as the key to spatial transformation (pg.238) and the accommodation of diverse household types is encouraged. (pg. 254).
- **Spatial sustainability** – Sustainable patterns of consumption and production must be supported and ways for living that do not damage the natural environment. **Walkable neighbourhoods**, for example, reduce the need to travel and limit greenhouse gas emissions. In terms of this principle a clear strategy for densification of cities through land use-use planning is proposed (pg. 33).
- **Spatial resilience** – Reduce the vulnerability to environmental degradation, resource scarcity and climate shocks. Ecological systems should be protected and replenished and support the transition to environmental sustainability (pg. 256)
- **Spatial quality** – The aesthetic and functional features of housing and the built environment need to be improved to create **more liveable, vibrant and valued places**. Prioritising public transport

and the **discouragement of private car** users is seen as one of the strategies in terms of this principle (pg.164).

- **Spatial efficiency** – Productive activity and **job creation must be supported**. Efficient commuting patterns and circulation of goods and services must be encouraged. Further procedures must not impose unnecessary costs on development. Unlocking development potential is seen as part of the spatial vision of the development plan (pg. 247)



### 2.1.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011.

**G2055** initiative is an initiative aimed at preparing the Gauteng City Region for a population of approximately 28 million people by 2055. The G2055 vision is for Gauteng to have a strong knowledge capital, be the hub of innovation to Africa, and be a liveable, prosperous, competitive, equitable, accessible and sustainable City region. The initiative is spatially addressed in the Gauteng Spatial Development Framework (approved in February 2011).

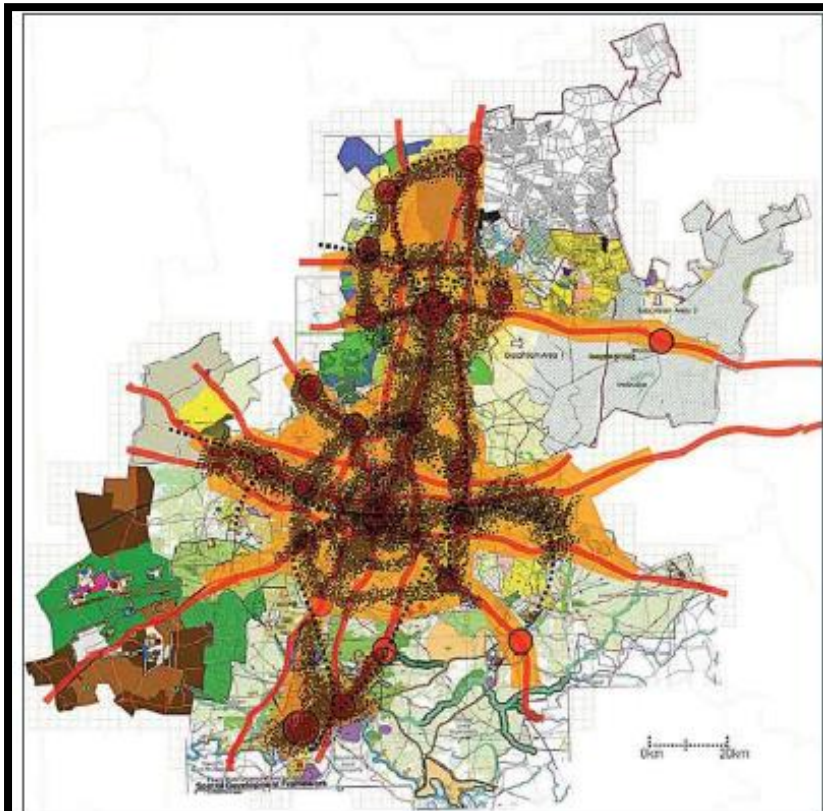


Figure 2-17: Proposed consolidation of urban development in Gauteng Province

Source: Gauteng Spatial Development Framework: 2011

The Gauteng Spatial Development Framework (GSDF) provides a common future spatial structure for the Gauteng Province and is clear on the fact that growth must be structured and directed (pg. 10).

The primary structuring elements identified within the GSDF are those of:

- urban mixed-use activity nodes
- open space and green system
- public transit and movement routes
- urban corridors and activity spines

Given the comprehensive system of discernible urban corridors and public transport potential within Gauteng, consolidation of **urban development should be concentrated around existing primary urban centres, urban nodes, and urban corridors** and along urban activity spines. (pg.52)

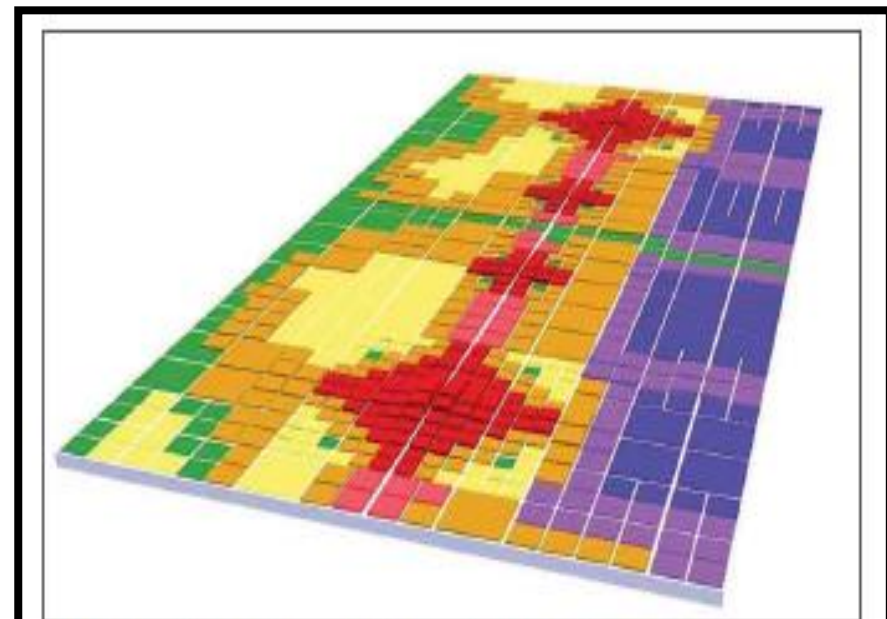


Figure A.2.7: Perspective model of a section of corridor

Source: Gauteng Spatial Development Framework: 2011



In terms of corridor development, the GSDF seeks to achieve the following:

- The containment of urban sprawl by way of growth management that seeks to advance compaction, **residential densification**, and in-fill development, and mixed land uses within the existing urban fabric will promote walking and cycling (pg. 65).
- the social and **economic integration** of disadvantaged communities into the urban system, particularly those on the urban periphery;
- the establishment of a hierarchy of nodes coupled with the improvement of **linkages and connectivity** between these nodes and areas of economic opportunity (pg. 86);
- **land use-public transport integration** through nodal and corridor development (pg;96)
- the promotion of viable public transport systems and **reduction of reliance on private mobility** with strong emphasis on **densification along the priority public transport routes**, especially rail and BRT routes which form the basis of the IRPTN movement system (pg. 83);
- public transport routes become the priority areas for **densification** and infill development;

Evident from these principles is the strong emphasis on public transport becoming the basis of the 'Movement system' in the province, and urban corridors, activity spines and public transport routes. Creating the framework for future processes of **densification** and intensification, including Transport Oriented Development (TOD) comprising mixed uses around road and rail based public transport facilities (pg. 136).

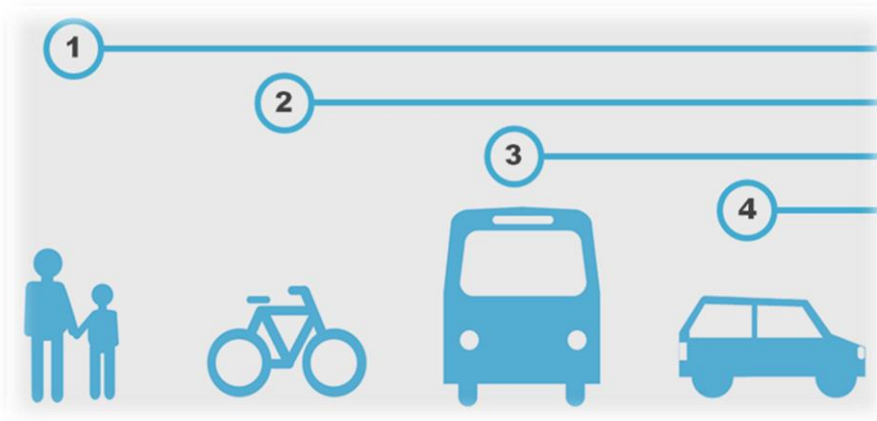
### 2.1.3 GAUTENG PROVINCE, GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013

The plan proposes a radical paradigm shift in spatial and transport planning. It serves as a point of departure from apartheid spatial planning, land use and mobility patterns and ushers in an innovative way of structuring our future societal development. It serves as a road map for more detailed planning, particularly in public transport, land use, human resource development and socio-economic development. It is underpinned by founding principles such as economic beneficiation; doing things in a smart and sustainable manner; and integrating transport networks, modes and services interventions" have been identified of which the following two clusters relate to BRT corridor planning (pg.23)

- Land Use Development  
Subsidised housing provision within urban core areas  
Land use densification in support of public transport;
- Strategic Public Transport Network  
Mainstreaming non-motorised transport (NMT)  
Reinforcing passenger rail network as the backbone of the system  
Extending the integrated rapid and road-based public transport networks

Other important principles are the promotion of NMT as part of a sustainable transport system, e.g. include NMT (walking and cycling) as a feeder system to all public transport systems and redesigning and/or creating a built environment (urban and rural) to inclusively accommodate NMT users according to universal design principles as may be appropriate in terms of social and economic objectives (pg.71).

**Diagrammatic representation of the modal hierarchy approach depicting an operational Category that favours the NMT modes**



Source: Gauteng 25 Year integrated Transport master Plan: 2013

Extensive land use densification and more efficient land use and transportation integration around the provincial public transport network will make a significant contribution towards enhancing the viability of public transport in the province. This would require large scale processes of infill development, densification and redevelopment of older urban areas in the province and the containment of urban sprawl by way of a comprehensive urban development boundary for the Gauteng City Region. It also proposes developing spatial compacts which promote processes of densification, intensification and infill development within the existing urban footprint of towns and cities. (pg. 136).

Municipalities should seek to achieve the following density guidelines in various functional areas:

- High Density: 80 units per hectare and higher within 1 kilometre from the provincial IRPTN network and activity nodes served by this network;

In terms of the Provincial Transport Master Plan all municipalities in Gauteng should identifying priority nodes/areas along these corridors and

**compile detailed Precinct Plans** for these areas (pg.32). The plan should be based on the following:

- Promote processes of densification and infill development.
- Reserving a percentage of spare bulk engineering services capacity to accommodate development along priority public transport corridors.
- Relaxing parking requirements for higher density developments along public transport Corridors.
- Facilitating and promoting non-motorised transport within the priority public corridor development areas by way of dedicated pedestrian and cycling lanes.
- Charging users for parking directly as opposed to hiding the true cost of parking in increased rent or tax subsidies.
- Improving public transport infrastructure significantly and subsidizing public transport costs.
- Road space reallocation aiming to re-balance provision between private cars and more sustainable modes.

#### 2.1.4 THE SPATIAL VISION OF THE CITY

The Spatial Vision of the City of Tshwane is to conduct integrated planning, maximising on spatial efficiencies for optimal service delivery.

- A Spatially Efficient Capital City that is Sustainable, Competitive and Resilient:
- Sustainability: Optimising the use of land through densification, infill and consolidation, resulting in a city with spatially integrated equal opportunities, correcting spatial imbalances, creating sustainable settlements and advancing social equity.
- Competitiveness: Instilling investor confidence by ensuring a well-managed quality built environment through enforcement of relevant legislation, maintenance and management of infrastructure and

strategic investment in infrastructure focus areas targeting broad-based economic growth.

- Resilience: Being innovative and adaptable, whilst maximizing spatial opportunities and in turn maximizing economic growth opportunities through strategic investment decisions.

### 2.1.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK.

The MSDF represents the spatial interpretation of desired growth and development directions for the City. It spatially focuses economic and infrastructure development and gives spatial expression to the development plans above (CDS and IDP), both for the long-term and the medium term.

The purpose of a metropolitan spatial framework for the city is to provide a spatial representation of the city vision and to be a tool to integrate all aspects of spatial (physical) planning such as land use planning; planning for pedestrian movement vehicular and other movement patterns; planning regarding buildings and built-up areas; planning of open space systems; planning of roads and other service infrastructure; as well as to guide all decision-making processes regarding spatial (physical) development.

It is the intention of the MSDF to restructure our fragmented, inequitable and inefficient urban form to create a more equitable, efficient and environmentally and financially sustainable urban dispensation in line with current legislation and policy.

The compaction and functional integration of the city are normative directives from national level, and implies:

- higher density urban development,
- greater mixing of compatible land uses and
- focussed concentration of high-density residential land uses and intensification of non-residential land uses in nodes, around transit stations (such as the Gautrain, BRT, Rail and other formalised intermodal transport facilities).

### 2.1.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY (APPROVED 21 NOVEMBER 2012)

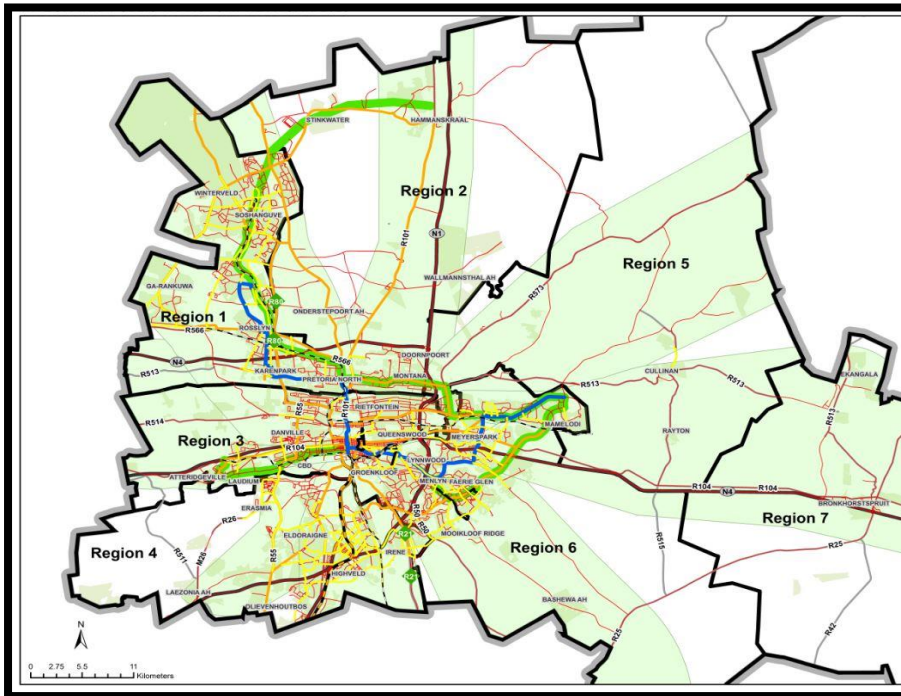
The purpose of the Policy is to provide the City with Operational guidelines for the IRPTN network. The document also provides guidelines in terms of the preparation of planning for IRPTN corridors. The key characteristics of the strategy include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 500 - 900 metres of a transit station
- Reduced parking ratios for private cars.

### 2.1.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN (CITP) (APPROVED 6 JUNE 2016)

The Comprehensive Integrated Transport Plan set out the transport goals and objectives for the City that are aligned with the City's mission and are the targets which the City aims to achieve:

- Plan and develop a transport system that improves accessibility and mobility whilst **enhancing social inclusion**;
- Provide a fully integrated public transport system;
- Develop a transport system that drives economic development;
- Improve the safety and security of the transport system;
- Develop a transport system that reflects the image of the city;
- Develop an efficient, effective, development orientated public transport system and **integrates land use and public transport plans**;
- Develop a transport system that is environmentally sustainable.



The CIP is built on the following five key pillars. A few policies and strategies are provided for each pillar as a means of illustration:

- I. Sustainable transport:
  - Provide a transport system with low negative environmental costs yet high positive social value, which supports resource efficient economic development.
- II. Public-transport orientated:
  - **Prioritising public transport and Non-Motorised Transport (walking and cycling) over private transport;**
  - Provide public transport access to all residents, including tourists and visitors

- **Landuse to support and promote public transport** e.g linking economic nodes with public transport, **increase land-use densities along routes** and around modal transfer facilities.
- III. Integrated transport:
    - Integration of land-use with transport, e.g. **densification along public transport corridors;**
    - Integrated planning and implementation between City of Tshwane departments, as well as between the City and other national and provincial authorities.
  - IV. Transport in support of a Smart City:
    - Affordability and accessibility of technology e.g. use of electronic communication connections for transport, safety and security (urban traffic control, passenger information, CCTV cameras, etc.);
    - Being “smart” by using scarce resources more effectively and through the application of suitable technology e.g. automatic fare collection using smart cards;
    - Provide modern public transport modes e.g. BRT, LRT, Gautrain.
  - V. People-friendly:
    - **Social inclusion, with an emphasis on access**, through the availability of public transport, to opportunities and services;
    - Provide affordable, easy to use, safe and secure public transport, including universal access and **facilities for walking and cycling.**

## 2.2. THE CITY STRUCTURE

The CoT covers an area of 6 260 km<sup>2</sup> and is the result of an amalgamation of the previous City of Tshwane, which was established in December 2000, and the three former Metsweding Municipalities (Nokeng tsa Taemane Local Municipality, Kungwini Local Municipality, Metsweding District Municipality), found directly east and south-east of the previous City of Tshwane.



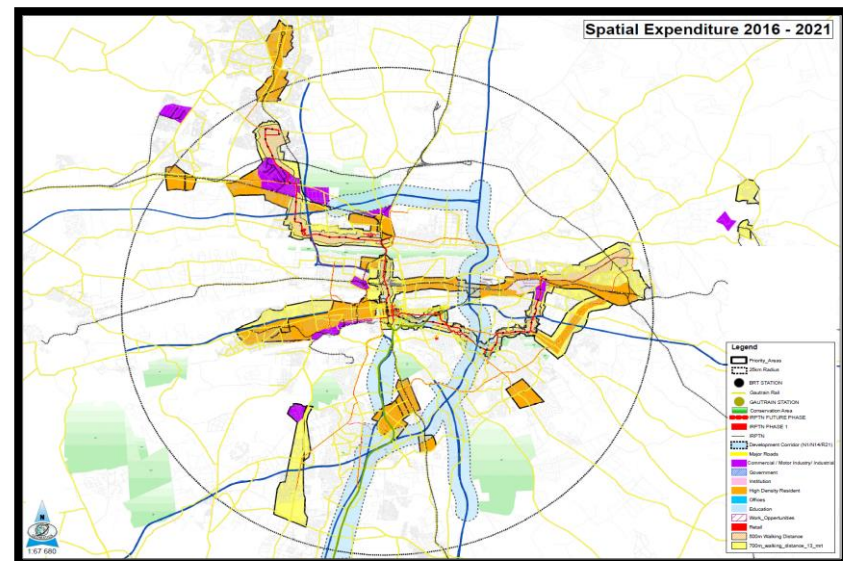
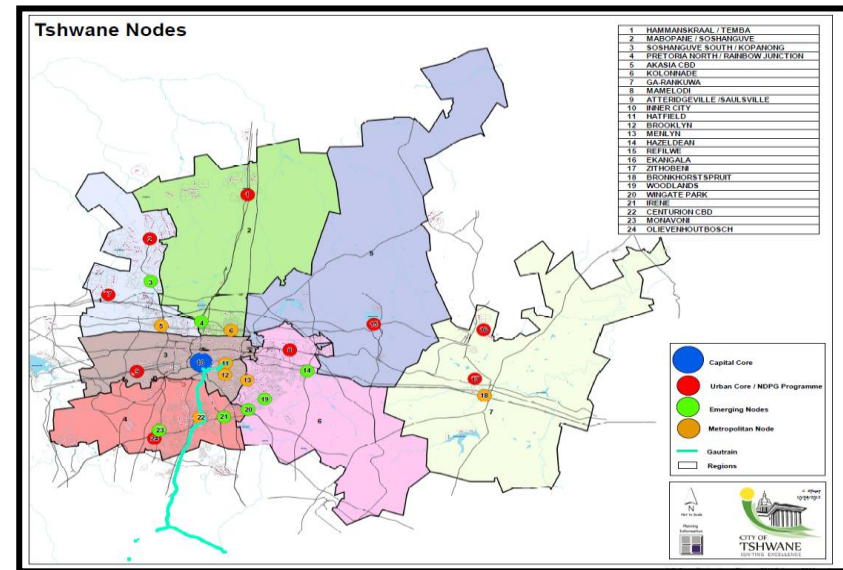
The City of Tshwane (CoT), located within the Gauteng Province, is bordered by the provinces of Limpopo to the north, Mpumalanga to the east, the Ekurhuleni and City of Johannesburg Metropolitan Municipalities to the south and North West province to the west.

With Gauteng being a total area of 18 178 km<sup>2</sup>, the City of Tshwane, at 6 260 km<sup>2</sup>, covers just more than a third of the surface area of the entire province.

Tshwane is divided into 7 planning regions, each with their own unique characteristics.

### 2.2.1 HIERARCHY OF NODES

Understanding that the current needs far outweigh the resources, it is important that the City focuses on the opportunities that exist for exponential growth and investment in the long term. These opportunities will be determined within the spatial vision by indicating where growth will occur in transport, housing, energy, water, recreation, education, health infrastructure and services. As explained by the smart growth concept. The spatial plan will promote efficient and effective resource allocation, ensuring that resources such as infrastructure are delivered in the right place and at the right time. This spatial plan also provides a sense of certainty for the future, and thus, investor confidence.



The key issue is that nodes within the city do not compete but complement and support each other so that the synergies between them maximise the potential of the City as a whole.

An important distinction is made between three nodal typologies i.e.

**Metropolitan Nodes / TOD** - these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Metropolitan nodes are those nodes within the City benefiting from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment. Such localities are also where the most extensive land use rights, including densities, are likely to be supported, also in line with the growth management strategy. Akasia and Pretoria North are presented as Metropolitan nodes.

**Urban Cores** - former township areas which were a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme Grant (NDPG) is a lead City programme and the main instrument 'township renewal'. Mabopane and Ga-Rankuwa presented as Urban Cores.

**Emerging nodes**- over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the *potential* for greater development is clear. Identifying future urban areas also provides

an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Kopanong (Soshanguve South) and Winterveld (Bushveld) are presented as Emerging nodes.

## 2.2.2 SPECIALISED ACTIVITY AREAS

There are nodes in the metropolitan area that are characterised by largely mono-functional land uses taking up large, concentrated and defined space. The character of the areas ranges from industrial to high technology smart industries, medical facilities, educational, research and conservation facilities. It is important to acknowledge these specialised activity areas not just in terms of their scale, but because of their sphere of influence in terms of generating movement, opportunities and linkages with other areas. These linkages do not only refer to physical linkages, but also to "connectivity" in a broader sense, such as between institutions of learning and research.

The Blue IQ initiative of the Gauteng Provincial government contributes significantly towards the specialised activity areas in Tshwane. Blue IQ aims to deliver strategic economic infrastructure to catalyse sustainable economic growth and to indirectly contribute to job creation; to influence the composition of exports, and influence the diversification of Gauteng's GGP. The Blue IQ initiative focuses on five growth areas:

- Business
- High value-added Manufacturing (high value-add)
- Logistics
- Information and Communication Technology (ICT)
- Tourism and conservation

### 2.3 GROWTH MANAGEMENT

Growth management is a spatial concept that encompasses all aspects that ensure efficient, optimal and sustainable development of the physical environment. A key principle of this concept is smart growth. The smart growth principle guides development in such a way that resources and services are provided in a manner that meet the demands of the affected population over a long-term period.

The role of nodes within the growth management concept is fundamental. Nodes are those parts of the city where development should be focused. The widest variety of services and opportunities should be provided at nodal points, at degrees relative to their nodal status. The costs of urban sprawl and associated low densities are undeniable. Due to the limitation that development can be subjected to through the inability to provide bulk infrastructure, it is imperative that available infrastructure within the nodes are used optimally. This requires densification and intensification of land uses through compaction and infill developments. The maximisation of urban management within the nodes requires that these areas are specifically delineated within the greater developable areas for optimal growth.

The Compaction and Densification Strategy that was approved by the Council contains proposals for densification of the metropolitan area, which have local implications for each of the planning regions. The interpretation of the densification strategy for every region required special attention in the preparation of the RSDF 2017.

The strategy contains proposals for three key density zones:

- Concentration zones (high density / transit zones).
- Linear Zones i.e. corridors and spines (medium density).
- Suburban Densification (low to medium densities).
- Low density zones

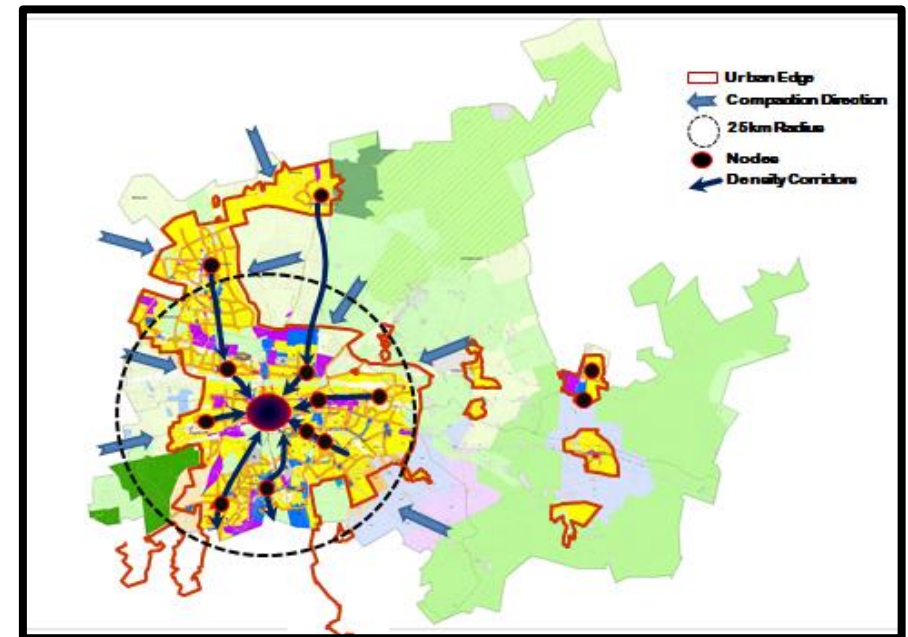
Densification and infill are sound urban development principles to pursue, but it should be noted that most existing developed areas were not planned to accommodate higher densities and that in general the present road infrastructure cannot accommodate the additional traffic that densification

implies. Densification should therefore be approached holistically striving to also support a better public transportation system as a dual development process.

Densification is necessary for a number of reasons but most importantly it should support the provision of all urban services as best as possible.

Looking at the city from a metropolitan perspective ideally, areas with higher densities should be in the following localities:

- As close as possible to the CBD.
- Close to metropolitan core areas and services.
- In the proximity of areas with job opportunities.
- Close to public transportation facilities (major road and railway facilities).



These delineations extend from the containment of areas where development is permissible to areas where little or no development is permissible- such as environmentally sensitive or conservation areas.

### 2.3.1 URBAN EDGE

One tool for providing such delineations as discussed above is the urban edge. The urban edge will contribute to the achievement of the strategic objectives by conserving valuable environmental areas which would otherwise be compromised by development and promoting the use of existing infrastructure through redevelopment, infill development and densification within the edge thus achieving development that is sustainable. The urban edge also encourages the agglomeration of economies within the edge, encouraging scattered secondary or emerging nodes to develop into consolidated primary nodes as opposed to leapfrog development. The edge also ensures the protection of land- an exhaustible resource- by encouraging brownfield developments instead of greenfield developments.

### 2.3.2 TSHWANE RETAIL STRATEGY

The Tshwane Retail Strategy was formulated to guide decision-making on the development and management of retail nodes for the city.

Retail development should balance the needs of the retail sector with the needs of communities, urban functionality and sustainable development and should make a positive contribution to the overall urban environment. The local authority will take a more facilitative approach toward retail developments, provided that the actual development is in line with and support the urban objectives and contribute to a more functional, equitable, convenient and attractive metropolitan environment. Retail development should therefore be approached holistically, looking at the economic, social and environmental aspects.

The principles that underlie the approach taken in retail developments in Tshwane can be summarised as follows:

- To allow market forces and the free economy to determine the trend and tempo of retail development within the parameters set by the Tshwane Retail Policy.

- The desirability of a retail facility will be influenced by the broader area and the specific site as well as the degree to which the retail development contributes to the enhancement of the overall environment and the achievement of metropolitan development goals, as set out in the MSDF.
- Retail developments must be sensitive towards its location and surrounding environment, and be designed and sited in such a way that it contributes to the overall quality of the environment and not detract from it. A number of qualitative aspects will therefore have to be considered when evaluating retail applications, such as urban design, landscaping, public transport, interfaces etc.
- Retail applications and the evaluation thereof have to take consideration of the local context, i.e. the same guidelines and criteria do not apply uniformly to all parts of the metropolitan area.

Because of the fact that Tshwane comprises a large number of diverse areas, each with its own history, level of maturity, growth, population characteristics etc., it would be unwise to have a singular approach to retail development as a land use.

For this reason, a package of spatial strategies has been developed, that aim to address the relationship between specific contextual circumstances and future retail potential. These strategies should be interpreted more on local level, and are reflected in the Regional Spatial Development Frameworks.

### 2.3.3 RETAIL IN URBAN CORES

It is important to look at the retail development within urban cores relative to other parts of the city in context. The retail developments in urban cores are not developed to the same level as in other parts of the city due to the inequitable development policies of the past. Nonetheless, these tables reflect that retail activity does serve as an economic activity within urban cores, albeit not to the same extent as in the metropolitan nodes which have a long history of favourable development policies.



Within the current context of the city's development policies where equal opportunity is promoted, it is also important to note that retail development, as with many other economic activities, is largely a function of the private sector. The private sector is market-driven, which means that it responds to demand and consumer characteristic. At the same time, the consumer will seek out very specific retail typologies depending on their specific characteristics as a consumer. This supply-demand relationship between developer and consumer will remain a permanent state of affairs. At present, the extent of retail development has largely catered for the consumer group mostly found within urban cores. Previously, due to a lack of private transport and expensive public transport, low-income earners were compelled to source their needs from small localised township retailers. Lower priced goods available at township shopping centres or establishments offered not only the variety of goods available, but also allowed goods and services at more affordable prices.

But the population profiles throughout the city are changing as it becomes more integrated spatially, socially and economically. These new population dynamics require that access is given to the upwardly mobile of the former township areas so that spending within the retail arena or urban cores can be directed inward to contribute towards further developing the urban cores. Those that move up the social and income ladder that previously preferred to shop outside townships in upmarket malls (known as 'outshopping') may to a large extent start redirecting their expenditure to township malls if upmarket retail developments are increasingly brought into the urban cores.

The importance of increased, high quality retail development within urban cores is thus two-fold:

- Equitable access to retail opportunities
- Economic stimulation by redirecting spending that might otherwise leave the urban core back towards the core to increase development

While retail development is driven by the private sector, the city has a role towards facilitating the ease with which developers invest in the urban cores. This especially relates to service infrastructure and supporting development policies. Through the NDPG programme, public initiatives will support private funding within urban core areas.

The table below sets out the various urban cores identified within the City of Tshwane:

Township/Catchment Area	Node/Precinct
Mamelodi/Nellmapius	1. Eerste Fabrieke Station Node
	2. Solomon Mahlangu Precinct (Denneboom Station)
	3. T-Section Node
Atteridgeville	4. Saulsville Station Node (includes: Saulsville Station, Atteridgeville Station, CBD and resorts)
Mabopane/Soshanguve	5. Mabopane Station
	6. Soshanguve South x14 (Klip-kruisfontein)
Hammanskraal/Temba	7. Hammanskraal/Temba Node
Olievenhoubosch/Monavoni	8. Olievenhoutbosch Node
Refilwe	9. To be determined
Zithobeni	10. To be determined
Ekgangala	11. To be determined
Ga-Rankuwa	Garankuwa Node

## 2.4 MOVEMENT AND CONNECTIVITY

Movement of people and goods throughout the metropolitan area is of city-wide importance. The main characteristics of current movement patterns within the City of Tshwane are the following:

- Many public transport dependant persons moving into the CBD from the north, the west and the east characterise every morning peak.
- Masses of private vehicles originating in the south and south-eastern parts move from the city in a southerly direction towards Johannesburg.

### 2.4.1 URBAN FORM AND TRANSPORT INTEGRATION

In all successful cities there is a strong linkage and interaction between movement patterns and systems and urban development. It is necessary that land use planning is done in a way that supports public transport but it is also necessary to ensure that mass public transport planning promotes and supports urban restructuring and sustainable urban development.

The city historically developed around a strong central core as a mono-centred city. Private investment patterns changed over time with increasing car ownership and a ring of satellite nodes developed. These satellite nodes developed into viable decentralised locations, creating a multi-nodal urban form.

A further implication of the development of the satellite nodes is that the City of Tshwane is becoming increasingly inefficient and hence unsustainable spatially. More residents are becoming ever more dependent on private transport, which is becoming increasingly expensive. The majority of the City's residents have no option other than to rely on inadequate public transport which is also becoming more expensive and unsafe.

#### Spatial challenges identified at Metropolitan Scale

Tshwane is a very large and dispersed metropolis featuring numerous challenging characteristics:

- Low density sprawl: Based on an anti-urban ethic of the free-standing house on a plot.
- Fragmentation: the grain of development is coarse, with isolated (introverted) pockets (cells) connected by roads (and freeways), frequently separated by buffers of under-utilised open space or geographical barriers such as steep ridges.
- Separation of functions: land uses, public facilities (urban elements), races, income groups are all separated by great distances.

#### Settlement form

The combined implications of the spatial patterns on the lives of the majority are disastrous:

- Much time-consuming and expensive commuting is necessitated, which aggravates poverty (and inequity) in society;
- City living has become over-dependant on the private car, which the vast majority cannot afford;
- Increasing numbers of private cars results in traffic congestion and increases pollution;
- The nature of roads results in environments which generate few opportunities to which small-scale economic operators can respond;
- The system is inefficient and wasteful of scarce resources, such as land, energy and finance.

#### Future Spatial Development of Tshwane

In order for Tshwane to accommodate the projected population growth and become sustainable within the Gauteng context, densification will have to take place within specific transport orientated corridors.

The future spatial development of Tshwane will focus on the intensification of urban and metropolitan core areas. The growth of Tshwane should be directed inwards towards the urban cores, mixed use activity spines and specialised activity zones.

#### The nature of Public Transport Corridors and their role as Macro Urban Structuring Elements

The development of a mass public transport system such as the IRPTN/Bus Rapid Transit System, Rail and Light Rail can be seen as a tool to achieve either of the following:

- The efficient movement of people around the metropolitan area; or
- The overall restructuring of urban functionality through the employment of an efficient and appropriate public transport system.

The distinction between the two objectives is important from an urban planning perspective. If the objective is merely to move people around in the city, particularly moving them from home to work and vice versa, then the development of a mass public transport system is purely a transportation

issue and is primarily concerned with the provision of roads, infrastructure and vehicles.

However, if such a system is to be utilised to improve not only the movement of people, but also to contribute to the improvement of the overall urban functionality and urban image, then the integration between aspects such as transport planning, land-use planning, urban design and urban management becomes vital.

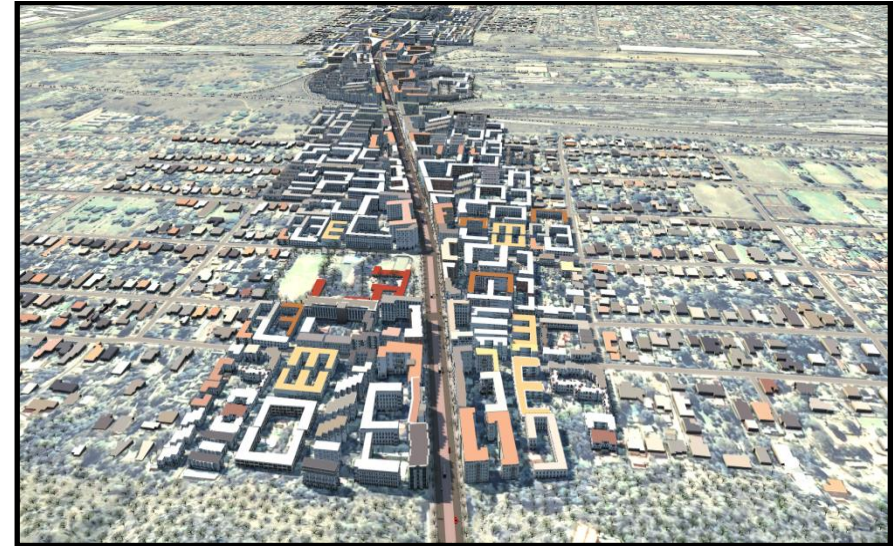
### **Mobility / Transport Corridors**

The primary reason for the existence of this type of corridor is to move large numbers of people from one point to another in the city and often over relatively long distances. Within the Tshwane context mobility has to be ensured on the following three levels:

- To and from other parts of the world and South Africa;
- To and from the Gauteng City Region;
- Movement within the Tshwane Metropolitan Area.

One of the primary reasons for the existence of this type of corridor within Tshwane is to move large numbers of people from one point to another in the city and often over relatively long distances.

This corridor will typically move people from the peripheral areas to work opportunities and back during the day. Because of the long distances separating many people from their work opportunities there is a great need to move people around the city during peak hours in the fastest, most cost effective manner with as little stops as possible between the origins and destinations.



### **Activity Corridors**

The integration between land use, economic activity and movement is the key function of this corridor. People do not only move between the two outer points of the corridor but also between various points along the corridor.

A mature activity corridor displays most of the positive aspects associated with activity corridors, such as high residential densities and high non-residential land use intensities.

Such a corridor will be most appropriate in the more central parts where a number of nodes with a certain degree of intensity and mix of uses already exist in relative close proximity to each other.

Within the Tshwane context accessibility has to be ensured on the following three levels:

- To and from other parts of the world and South Africa
- To and from the Gauteng City Region
- Movement within the Tshwane Metropolitan Area

## 2.4.2 EFFICIENT METROPOLITAN MOVEMENT SYSTEM

The basis of an efficient metropolitan movement system in Tshwane is highways which form the corridors for large scale economic development and connect Tshwane with the rest of Gauteng and the country. These include the N1, the R21, the proposed western bypass and Bakwena Platinum (N4) Highway.

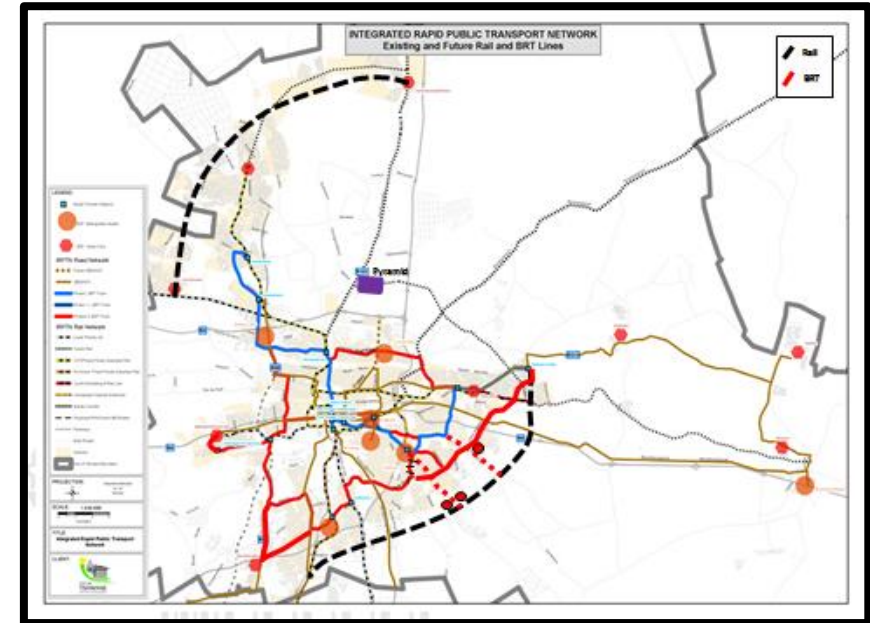
All areas in Tshwane must be well inter-connected by means of a good and efficient public transport system. Two systems are proposed that can serve as the basis of a public transport system, namely rail and the IRPTN/Bus Rapid Transit System.

The existing rail system has great potential of becoming the basis of public transport throughout Tshwane and should therefore form the primary movement system, especially over the longer distances. This system however has current challenges that must be resolved.

The establishment of an IRPTN/Rapid Bus Transit System is the ideal solution to solve public transport problems over short to medium distances, and will also contribute to connecting metropolitan activity nodes that do not lie on the rail network with each other.

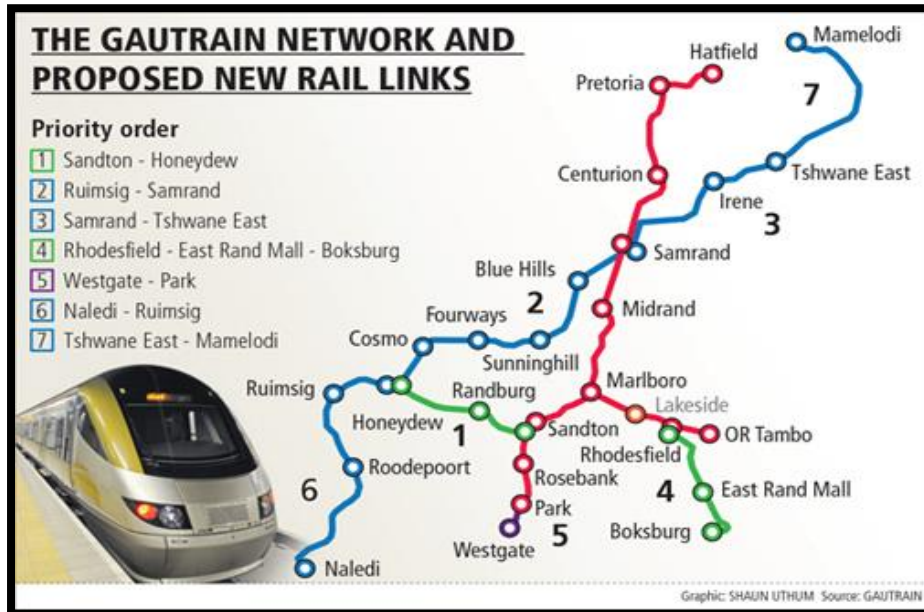
The incomplete concentric road network needs to be developed further to serve the multi-nodal structure of Tshwane.

The Gautrain which links Tshwane to Johannesburg and the OR Tambo International Airport by means of a high speed rail link. The areas around the Gautrain Stations provide the potential for urban renewal in and around station precincts. The proposed extensions of the Gautrain to the east of the city is supported and will improve the general movement within the city.



The Gautrain project is primarily aimed at enhancing and supporting economic growth in the Gauteng Province and generating employment. Gautrain is contributing to the urban restructuring of Gauteng. Gautrain station nodes are important as the more people start to stay around stations, the better services are used, less time and money is spend travelling and a more convenient lifestyle is offered.





Spatially efficient densification policies cannot be implemented without the support of public transport. More residences add more vehicles on roads which are already over capacity. Public transport can be regarded as the tipping point of the success of the city's spatial policies.

Bicycle lanes and pedestrian lanes: Attention must be given to the establishment of separate bicycle lanes and pedestrian walkways to allow for safe movement of cyclists and pedestrians. If these facilities are provided, it will encourage NMT and alleviate traffic problems.

With regards to the movement system, the central concern should be maximising access to regional opportunities. Access has both physical and non-physical dimensions. At a physical level this relates to convenience and at a non-physical level this relates primarily affordability.

Apart from the physical route, there is also the matter of the means by which one will travel along those routes. Tshwane is experiencing high economic growth, a growing middle-class, and increased vehicle ownership that is

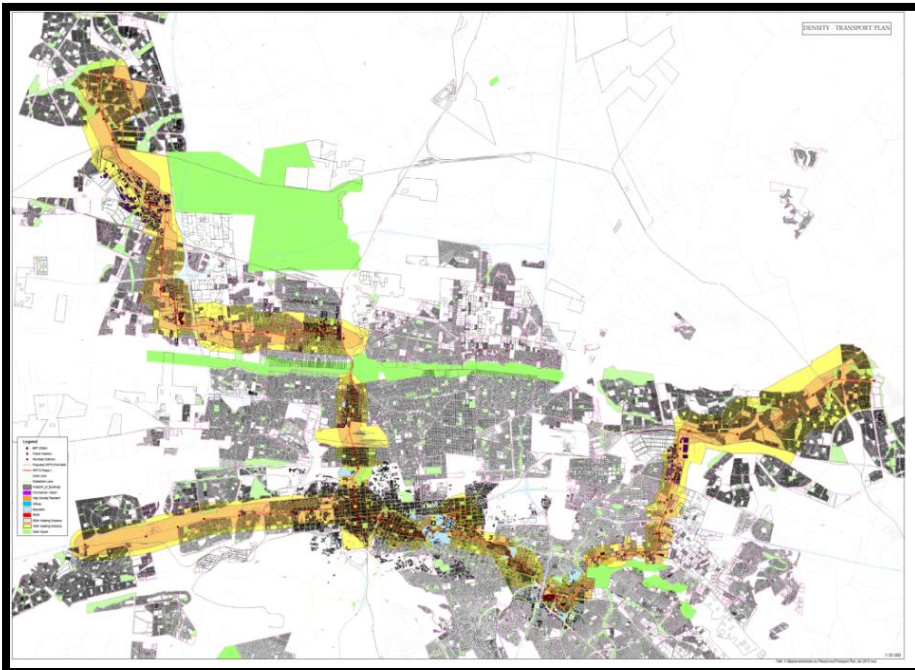
causing a surge in traffic volume and congestion. Public transit has not been providing an attractive commuting alternative for those who can afford private travel options.

PRASA is currently undertaking studies into the existing and future demand and capacity of rail-based transport. All planning in this regard will also be informed by financial feasibility. There is an opportunity to create efficiency and close public transport gaps by integrating the BRT network with the Rail network. The BRT offers opportunities for both long and short distance travel. This means that where long-distance rail is not feasible, BRT can be implemented or *vice versa*, specifically in the case of long distance travel.



The integration should be carefully planned in order to ensure sustainability by avoiding competition between the two transport options. Preliminary indications are that there is not enough capacity to support both the Rail and BRT system along the same routes. Further, it is expected that the first phase of the BRT will link Akasia and Menlyn area to the CBD. The BRT will provide both long and short distance travel options. This scenario negates the necessity for rail along the same route.

The Bus Rapid Transit and Rail should be the backbone of the future Tshwane transport system. The intention is that they become the preferred mode of travel for the majority of residents. In time, the improved public transport system should slowly start overtaking private vehicle usage specifically in nodal areas. This intervention will encourage transport-oriented developments.



Key characteristics of transport-oriented development include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly

- medium to high density development within 800 metres of a transit station
- reduced rates of private car parking.

This means that developments that cater for, or provide public transport solutions or align themselves along public transport routes will be prioritised. The decrease of private vehicle usage will also promote pedestrianisation of urban areas and an overall decreased carbon footprint. On the reverse side, in order for efficient transport systems to be sustained, a critical mass of users must be achieved. This means that localities that would induce the convergence of large numbers of people would be required.

This again, brings us back to the nodal concept of the widest possible range of services within an area and highest residential densities being supported. The higher the rate of usage of the public transport system, the more affordable it will be. At the same time, the convergence of a large number of private vehicles in a locality causes traffic congestion and an avoidance of such an area by those who have alternatives. Removal of private vehicles can effectively improve the quality of an environment.

The City's road, rail and air movement systems will need to be developed to optimise all related opportunities. The rail system should become the backbone of public transport throughout Tshwane and it is therefore an important structuring element of the city. The positions of the urban cores purposefully coincide with major railway stations. The Gautrain stations in Tshwane include Hatfield, Centurion and the Inner City, again creating opportunities for intensification and development. Further expansion to the east will also allow for additional densification opportunities. The proposed metropolitan vehicular movement system should be designed to support the rail system, i.e. to enable convenient transport of people to and from the railway stations. The rail network which is well developed with only a few missing linkages is not utilized in terms of its potential as a mass transport facility. With the majority of the population dependant on public transport the strategic rethinking of this mode of transport is necessary.



### Liveable Streets Concept

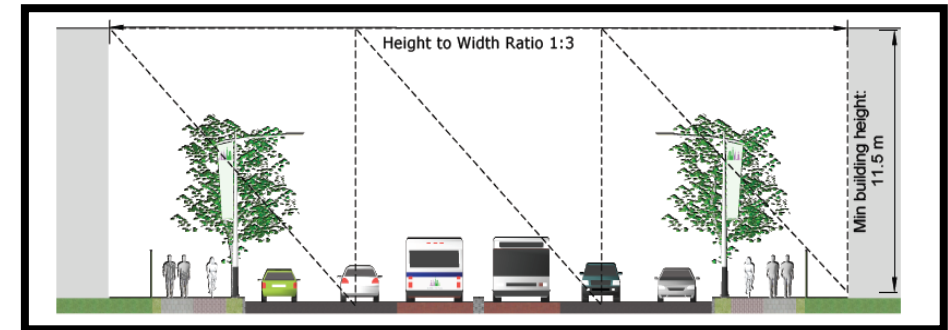
Liveable streets are defined as streets for everyone that are planned, designed and operated to enable a network of safe access for all users, including pedestrians, cyclists and transit riders.

The liveable street concept requires streets to be designed to enable safe, convenient and comfortable travel and access for all users, regardless of their mode of transportation. Complete streets accommodate walking and cycling. Streets are currently designed to only cater for cars; pedestrians are accommodated in the leftover space along narrow sidewalks. No provision is made for other modes of transport and the socialising function of streets is ignored. This is specifically problematic in the inner city where there are large numbers of pedestrians and where the limited space available requires streets to be part of the open-space system. In terms of the complete streets concept vehicle and public transportation users are separated. It also makes provision for the socialising needs of residents and inner city users.

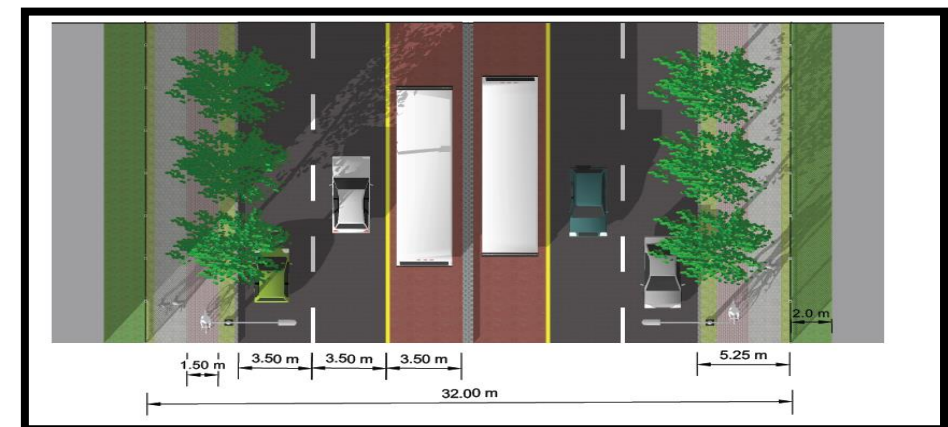
The design principles of complete streets are –

- traffic-calming measures to lower the speeds of vehicles;
- a road diet to reduce the number of lanes for vehicles and on-street parking;

- landscaping and streetscaping elements such as trees and benches to create a pedestrian-friendly environment and protect pedestrians from vehicles;
- wide sidewalks to accommodate comfortable pedestrian movement;
- widening of sidewalks in some places to allow for socialising spaces;
- accommodation of cyclists, such as protected or dedicated bicycle lanes; and
- accommodation of public transport such as the bus rapid transit.



The attached diagrams give a clear indication of how the trunk routes must be developed in cases where 32 m and more than 40 m road reserves are available.





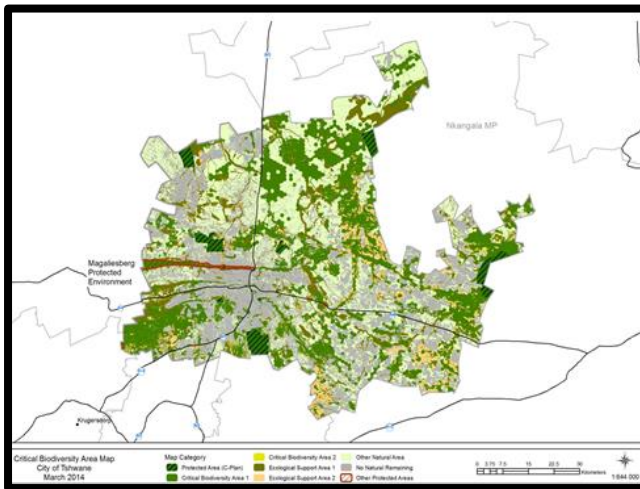
## 2.5 ENVIRONMENTAL STRUCTURING CONCEPT

### 2.5.1 HERITAGE AND CULTURAL SITES

Tshwane's urban form and identity is closely linked to the influence of its natural and cultural elements. The developed areas are intimately intertwined with open spaces, creating a city with a unique character. The spatial development of the city should continue to value the role and prominence of the natural environment that sustains and informs the city. The natural structuring elements of Tshwane are those physical features that have to a great extent influenced the historical growth and settlement development pattern and that have an important ecological role to play in the ecological integrity of the metropolitan area.

### 2.5.2 OPEN SPACE AND CONSERVATION AREAS

A well-defined open space network is an important and integral part of the Spatial Development Concept of the MSDF. The Tshwane Open Space Framework was approved in November 2005. The Framework will need to be reviewed and updated to include the newly incorporated areas of Tshwane.



The development of an open space network is an integral part of shaping the city. Ecological resources are irreplaceable and should thus be one of the major structuring elements guiding the development of the city instead of unplanned urban growth taking precedence and open space becoming merely land that is not desirable for urban development and thus 'left over' space. An important step in shaping urban form is thus the determination of an open space network, which contains natural processes and systems. The open space network is concerned with the spatial structure of green areas in the urban landscape and with all planning activities that are essential to create conditions for green areas to perform ecological services and to contribute to the quality of urban life. It is thus used to indicate the position of green areas in the urban landscape. As such it has spatial, social and technical dimensions. An open space network is also a planning concept, indicating the intention to develop planning and management tools for the structural role of green areas in the urban fabric and the urban organisation.

An open space network not only contains the elements that constitute the open space in itself (vegetation, water, animals, natural materials etc.), but above all how the various open spaces are shaped in relation to the concepts of distribution and organization, to form a system of open spaces. An open space network incorporates a wide variety of open spaces into one system. Open spaces cease to be discreet elements within the city but together form a network in which each component contributes to the whole.

Open Spaces inter alia include the following:

**Conservation Areas:** Areas designated for nature conservation, which may include tourism related facilities and recreational facilities directly related to the main use.

**Recreational and tourism related facilities:** Outdoor and tourism related activities, including hiking trails, hotels, 4x4 trails, wedding venues, conference facilities, curio markets, farm stalls, restaurants, game lodges and resorts with a rural character with due consideration to its impact on the surrounding area and environment. The COT has tremendous opportunities in the eco-tourism arena. Most of the eco-tourism activities

occur along the Roodeplaat Dam, which is situated to the north of Cullinan (Zambezi) Road on the farms of Zeekoegat, Leeuwfontein and Roodeplaat. Both Roodeplaat Dam and Bronkhorstspruit Dam are under immense pressure from high income residential enclaves. Increased development pressure could cause serious degradation of the natural areas as limited environmental management guidelines exist. There is also the Dinokeng Blue IQ project. Eco-tourism activities that can be enjoyed include but are not limited to the following: game farms, nurseries and bird watching to mention but a few.

It must be emphasised that an open space network does not only focus on 'green' spaces, but also on more urban or 'brown' and 'grey' spaces, as well as on spaces that contribute to place-making within the city.

From a city-planning perspective open spaces have various important functions:

**City structuring:** Historically Tshwane's numerous mountain ranges and ridges, rivers and water courses, and nature reserves and conservation areas have had a lasting impact on the city form and development pattern. Today this impact is still felt, as the Magaliesberg with only a few crossings still forms a barrier between the more prosperous southern suburbs of Tshwane and the less well developed northern suburbs. The scenically beautiful conservancy areas in the south-western part of the city form natural buffers for urban expansion in that direction.

On the other hand these structuring elements do present an opportunity to connect and integrate the various parts of the city, e.g. the Apies River which crosses almost the entire municipal area from south to north.

**City image and identity:** The mountain ranges and ridges, large conservancy and protected areas in particular, and rivers and water courses to a lesser degree, are responsible for Tshwane's unique African character and identity, which is being best described as 'nature within a city' and 'a city within nature'. There is the positive contrast between the built-up and natural environments everywhere, but nowhere more expressive than at the southern approach to the inner city. This uniqueness must be protected, enhanced and celebrated at all costs in the future.

**Urban expansion:** The large open spaces (ridges, conservancies, protected areas, etc.) contain urban expansion and prevent the city from developing into a monotonous build-up urban 'desert'. Because of the limitations on land availability this will eventually lead to a more compact city with higher densities, guaranteeing a more sustainable and efficient urban structure for the future.

**Land Uses:** Land-use planning must be done in relation to the open space network where possible, which creates the opportunity to place various urban land-uses or developments inside or adjacent to the open space network. The full potential of the network can therefore be exploited for unique projects which otherwise would not be feasible.

Such developments include ecological estates, where the primary focus is the conservation of the natural resource/open space. Conservation in this sense must not be seen as only protecting special or sensitive environments, but conserving open space as a valuable resource itself. The residential development is seen as a mechanism to protect and enhance the open space character and not as an end in itself. Special conditions shall apply in the consideration and approval of such developments, including the following:

- Dwelling-units shall be grouped together in as few clusters as possible;
- A strategic Environmental Assessment shall be done to determine the open space, the position of the clusters and the position of ancillary uses such as roads;
- Conditions shall be set for the design, character and overall relationship of the estate with its environment;
- Conservation conditions shall be strictly adhered to.

### 5.3 RURAL MANAGEMENT

#### Introduction

The erstwhile City of Tshwane (previous dispensation) was mostly characterised as an urbanised Metropolitan area with only a smaller sector known and characterised as definite Rural Areas. It is also important to note that parts of these apparently rural areas were further earmarked as Future Urban Development. These Future Urban Development Areas were

designated in terms of each Regional Spatial Framework for future urban expansion and development.

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new rural areas as well as the other existing areas need to be analysed and planned in order i.e to protect the Environmental sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land use development in the less sensitive areas.

### Background

The following source documents were used as building blocks for the compilation of the revised Rural Component, Rural Management and Rural Development:

- Tshwane Biodiversity Plan. (2016)  
  
All information with regard to the existing Urban Edge, Ridges, Ecological support areas, important areas, Irreplaceable areas, Protected areas, Game Reserves and Nature Reserves were used
- The existing and future provision of essential services  
  
Information with regard to the provision and capacity of Water (Reservoirs), Sanitation (Waste water plant), Roads, Storm water, Electricity, watersheds and flood lines were used to determine the development edge
- The Metsweding Environmental Management Plan
- The “Division” Plan and policy
- The Gauteng Spatial Development Framework 2011.
- The National Planning Commission: National Development Plan 2011: Chapter 6: An Integrated and Inclusive Rural Economy.

It must be noted that all these documents were used to inform the revised Rural Component and did not dictate the final product.

### Demarcation of the Rural Component

In terms of the Gauteng Spatial Development Framework, 2011 the function of determining the Urban Edge has moved to the Local Authorities and is a function that is not part of the provincial planning functions.

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

These areas will remain as Future Urban Development as it shall retain a rural character until such time that basic services can be provided. These areas still need to be managed as rural areas with specific guidelines contained in the different RSDFs.

As soon as the areas earmarked as Future Urban Development been serviced, these newly serviced areas will be excluded from the Rural Component and will form part of the urban fabric of the city.

### Vision

The Tshwane Rural Component vision will:

- Promote effective response to rural poverty.
- Ensure food security by maximizing the use and management of natural and other resources.
- Create vibrant, equitable and sustainable rural communities.
- Contribute towards the redistribution and sustainable use of all potential agricultural land.
- Support rural economies, based on agriculture, and where possible by mining, tourism and agro processing.
- Create employment and business opportunities for the existing rural population.

- Aims to prevent natural disasters like erosion and pollution and other detrimental effects on natural resources.
- Formalise residential settlements according to the Rural Component Framework.
- Promote accessibility to community facilities, work opportunities and housing for all
- Maintain acceptable standards for roads and other modes of transport
- Provide public transport services for the more densely populated rural areas.
- Identification of multipurpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations.
- Adequate services must be addressed to improve living conditions.
- The matter of ownership and tenants' rights must receive attention especially in areas where tribal land ownership exists.

### Guidelines

In the new Tshwane Metropolitan Rural component, the following conditions exist that need to be taken into consideration. Each Region has its own specific rural character and rural composition and detail proposals for the Rural component are therefore dealt with in each Regional context. Various Rural land use / Rural activity zones are located within the Rural areas and are indicated on the different Rural Component maps for the various regions. Together with the maps there are tables contained in each of the Regional Spatial Frameworks with restrictive or promotional conditions for every Rural land use/Rural activity zone located in that Region.

The Rural land uses/Rural activity zones for Tshwane Metropolitan area are:

- Development Edge
- Major rural roads
- Existing Infrastructure for essential services
- Future urban areas
- Management zones

- Agricultural areas and Agricultural High Potential areas
- Sensitive protected areas. (Combination of C-Plan protected areas), including (Ridges and Streams, Natural resources, Fauna and Flora protected places / areas)
- Heritage and Cultural protected areas
- Tourism potential places / areas
- Human settlements
- Conservancies
- Game and Nature Reserves
- Mines / Places of manufacturing
- Community Service Centres

### Conclusion

The main principle of rural development is to increase accessibility of rural communities to basic services in support of survival strategies in the first instance and, in the second, to establish a base from which to start engaging more in productive activities. Given limited resources, the rural component should provide for basics for survival to all existing settlements but no provision for additional settlement growth. Localities with some economic potential should receive higher levels and a wider range of services/facilities.

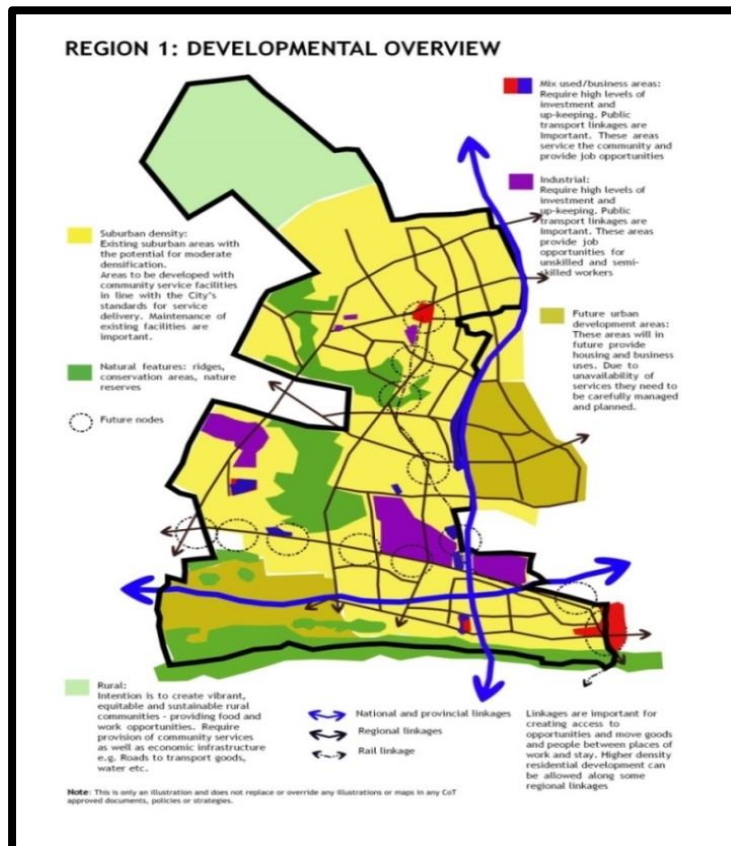
The Smart growth principle will further more be strengthened through a well-managed Rural Component and will assist in:

- Discouragement of urban sprawl and contain growth with the city limits
- Compaction of the city through infill and densification
- Improvement of the utilisation of existing infrastructure, services and facilities
- Preservation of the rural environment and landscape
- Protection of agricultural land, especially high potential agricultural land
- Preservation of the environments that promote tourism, recreation and nature conservation
- Assisting the urban regeneration by adopting an inward approach
- Protecting cultural and tourism assets.

## PART THREE: REGIONAL ANALYSIS

### 3.1 LOCALITY

Region 1 is situated in the North-Western part of the Metropolitan area, to the North-West of the CBD and to the West of the Wonderboom area (Region 2).



It is accessible via:

- The R80-Mabopane Highway (PWV 9), which links the region with the central regions of the metropolitan area. This road provides a North-South linkage but does not continue further North to link the area beyond the municipal boundaries.
- The Bakwena Platinum Highway (PWV 2) that links the region with the N1 freeway to the East and to the West links the area with Rustenburg and the Northwest Province.
- In general, regional accessibility within the area is limited although the PWV2 has improved the situation considerably since its construction.
- The link to the southern portions of Gauteng and the Tshwane Capital Core is also limited and will only improve once the PWV 9 has been completed in the western side of Tshwane.
- The proposed East-West link along Sefako Makgatho, K14 and Rachel de Beer roads are seen as the most important links within the Northern parts of the City.

### 3.2 REGIONAL CHARACTERISTICS

The main characteristics of Region 1 are discussed below:

- The Region consists of three main sections: A Southern section including Akasia, Rosslyn and Pretoria North and; Northern section including the Klipkruisfontein, Ga-Rankuwa, Mabopane, Winterveld and Soshanguve areas and the Rural area in the West.
- The Northern part of the region accommodates a third of the city's population largely in subsidised housing and informal settlements).
- The Northern parts have limited economic activity and limited formal employment opportunities. The majority of the economically active community work in the CBD and the Rosslyn industrial area.



- There is limited private sector investment in the Northern sections of the region and the Northern parts experience backlogs in infrastructure provision.
- The residents of the Northern part are mostly dependent on public transport.
- The Southern part (South of Rosslyn) represents medium to high-income areas with economies that are mostly private sector driven. The section consists of predominantly single residential, low density housing with high levels of services.
- The automotive cluster, located in Rosslyn, is situated central to the region. It is an important employment node on a metropolitan scale, and identified as one of the Blue IQ projects in the city.

### 3.3 STRUCTURING ELEMENTS

The main structuring elements of the region include:

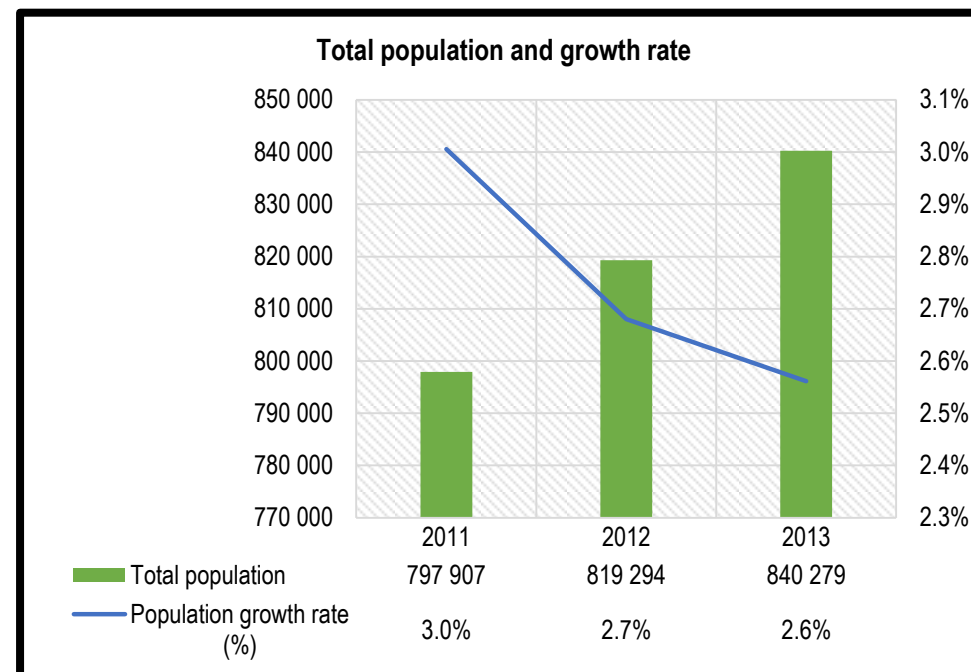
- The PWV 9 (R80- Mabopane Highway) running along the Eastern boundary of the region in a North-South direction.
- The PWV 2 (Bakwena Platinum Highway), running East-West through the Southern parts of the region;
- The Magaliesberg Mountain acts as a physical boundary in the South;
- The Tswaing crater in the North and the numerous rivers and wetland systems forming an intricate open space network throughout the region;
- The Rosslyn industrial areas situated between the Southern and Northern parts of the region.
- The existing railway line to Mabopane and Ga-rankuwa from the CBD.

## 3.4 DEMOGRAPHIC OVERVIEW

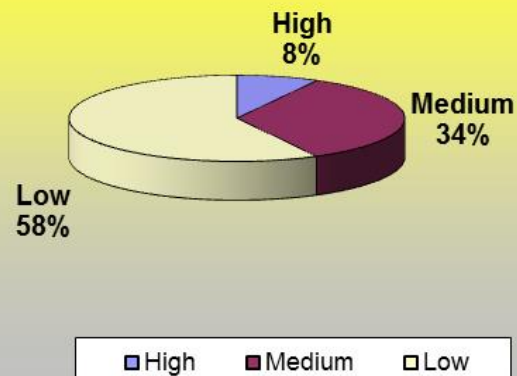
### 3.4.1 POPULATION SIZE AND COMPOSITION

An estimated population figure for this area is 904 888 people in 2016.( IHS Global Insight ) The average growth rate for Region 1 is about 2.5%.

#### Total population and growth rate, 2011-2013



### Region 1 : Dwellings per income category

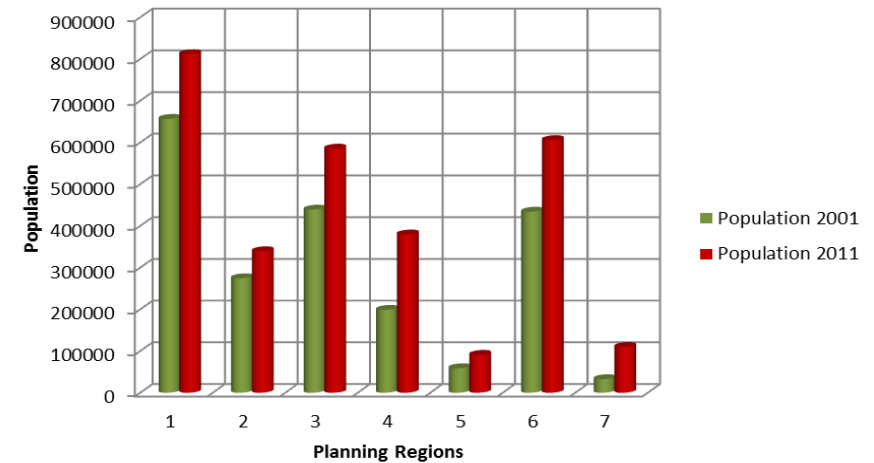


Source: Census 2011

### Population pyramid for Planning Region 1



### Population per Planning region 2001 vs 2011



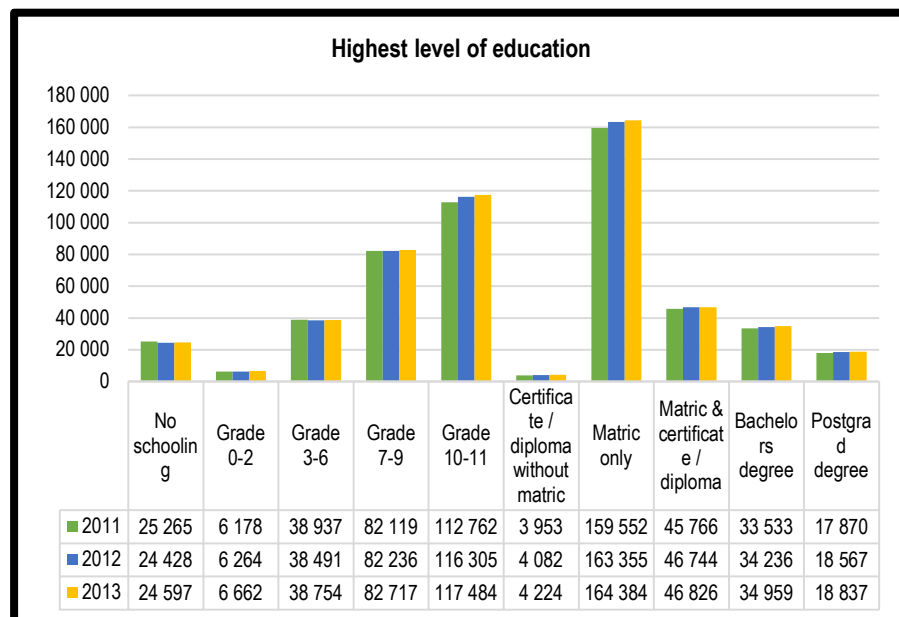
Source: Census 2011

### 3.4.2 SOCIO- ECONOMIC DATA

#### 3.4.2.1 Levels of education:

The population of the region has a low level of education compared to other metropolitan planning regions. The age groups from 25 year to 29 years are the largest. The majority of people in this region are within the economically active age group (16 to 65 years of age). That means a relatively low dependency ratio, as most people in this area should be able to access employment. The latter however depends on the number of job opportunities and access to areas of economic activity.

### Highest level of education attained for Region 1 population aged 20 years +, 2011 -2013



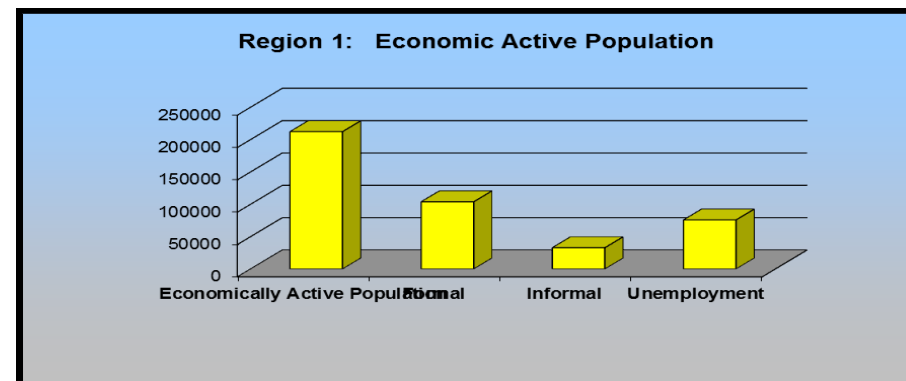
Source: IHS Global Insight

The above graph indicates the highest levels of schooling for the population aged 20 years and older in Region 1. As indicated in the figure, Region 1 has over the years under review i.e. 2011 – 2013, increasingly performed well with respect to education, more so in the accumulation of both matric and post matric qualifications. In 2011, approximately 159 552 individuals aged 20 years or older, had at least a matric qualification, this has since increased to 164 384 individuals in 2013. The number of individuals aged 20 years or older with no schooling have since declined from 36 280 in 2001 to 24 507 in 2013, i.e. a 32 percent improvement.

### 3.4.2.2 Economically Active Population:

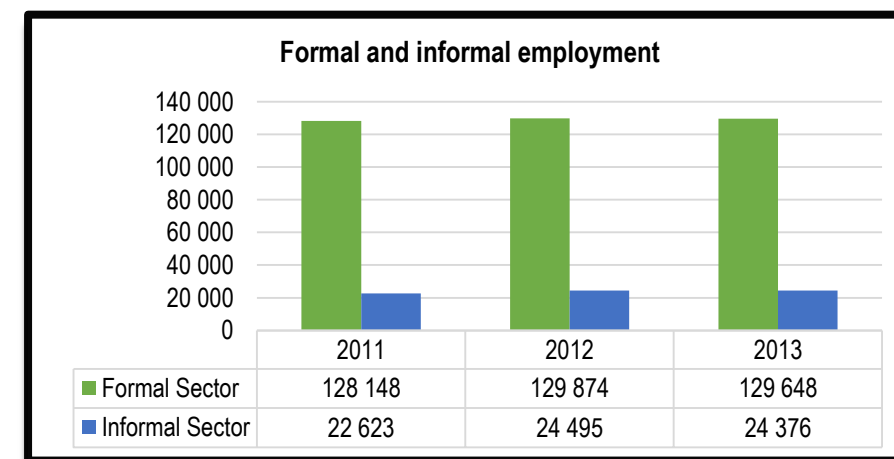
494

Approximately 129 000 of economically active persons are permanently employed in the formal sector. Approximately 30 % of the population (excluding those that cannot work) cannot find work.



Source: Census 2011

### Employment in Region 1 by sector (formal and informal), 2011 -2013



### 3.4.2.3 Dominant area of employment:

Although there are industrial areas within the region, the dominant area of employment is still the CBD of Tshwane.

### 3.4.2.4 Housing typologies.

81% of the population in Region 1 is accommodated in formal housing. Only 17 % of the Region 1 population live in informal settlements.

### 3.4.2.5 Service Delivery

Access to service delivery is a key government responsibility. This section focuses on the dwelling type, and associated services available to Region 1 residents.

#### Share of households occupying formal dwellings

Year	Share of household occupying formal dwellings	Share of households with Hygienic toilets (%)	Share of households with piped water at or above RDP-level (%)	Share of households with electrical connections (%)
2011	77.9%	81.7%	94.3%	87.7%
2012	79.8%	83.3%	94.1%	88.3%
2013	81.5%	84.0%	93.8%	88.7%

Source: IHS Global Insight

### 3.4.2.6 Ward Priorities for 2015/16

During the public participation process in preparation for the 2015/16 IDP review; the three top priorities per ward in terms of community needs / service delivery were reconfirmed and compiled.

In summary, the following were the key dominant service delivery issues which were raised in Region 1 during the 2015 review process:

#### Dominant Service Delivery issues

Dominant Service Delivery issues for Region 1	
Service Delivery Department	Community Issue / Concern
Roads and Transport	Gravel roads / lack of tarred roads Stormwater management Lack of sidewalks Some specific new link road required
Housing and Human Settlements	Need for formalisation of informal settlements Housing backlog and incomplete housing projects
Services Infrastructure	Electrification and public lighting and water and sanitation
Sports Recreation Arts and Culture	Park development and multipurpose facilities

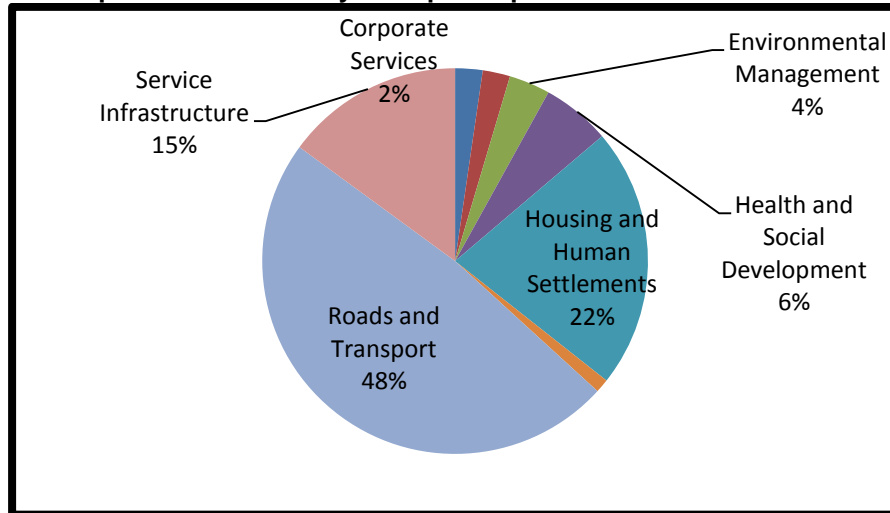
A more detailed indication of issues per service delivery area is given below. In addition to roads and housing, service infrastructure (e.g. water and sanitation, electricity) and sports and recreation facilities were raised in a high number of wards.

#### Issues per Service Delivery Area

Issued Raised per Department: Region 1	No of Issues	% of Total Issues
Corporate Services	2	2.0
Economic Development	2	2.0
Environmental Management	3	3.0
Health and Social Development	5	5.1
Housing and Human Settlements	19	19.2
Regional Services	1	1.0
Roads and Transport	42	42.4
Service Infrastructure	13	13.1
Sports and Recreational Services	12	12.1
<b>Total</b>	<b>99</b>	<b>100,0%</b>

This is summarised graphically below, giving an indication of the dominance of certain service delivery areas:

**Issues per Service Delivery Area per Department**



### 3.4.3 ECONOMIC BASE

#### 3.4.3.1 Secondary Sector

The secondary sector broadly consists of manufacturing, commercial, workshops, transport related activities and electricity services.

77% of the total land area for manufacturing activity is located in Region 1. Rosslyn contains the automotive cluster, which is a highly specialised sector and contributes greatly to job creation and economic stability within the area. Ga-Rankuwa industrial area also provides for industrial uses in the North-Western section of the region.

In comparison to other industrial areas of the metropolitan area, the region does not have a significant number of workshops or commercial uses such as warehouses, stores and wholesale.

This analysis therefore clearly indicates that the industrial area in Region 1 is highly specialised and offers the potential to be extended to include further secondary sector elements.

### 3.5 PHYSICAL ENVIRONMENT

#### 3.5.1 NATURAL STRUCTURING ELEMENTS

The environmental features of the region are major form giving elements that determine the surrounding urban structure.

Region 1 is characterised by the following aspects:

- Significant ridge systems in the Southern parts, notably the Magaliesberg as well as isolated hills at Ga-Rankuwa, Soshanguve and Mabopane; The Magaliesberg is a major environmental feature. This mountain range provides very little access to the South with only three crossing points. The one crossing point is in the south-east at the Wonderboompoort (M1), the second is centrally located via the Mabopane Highway (R80) and the third is to the south-west via Hornsnek Road (M17).
- Significant watercourse systems throughout, most notably the Apies River, Sand Spruit, Boepens Spruit;
- One major dam, that being the Nooitgedacht dam and important wetlands north of Tswaing Nature Reserve;
- Protected Areas at the Tswaing Nature Reserve as well as small portions of the Wonderboom and Onderstepoort Nature Reserves; Tolwane Nature Reserve in Ga-Rankuwa and other ecologically sensitive areas associated with ridge and watercourse systems;
- Very little or no COT maintenance actions around ridge and watercourse systems, especially in the northern most extents of the region;
- Very little COT maintenance data on all types of open space resources;
- Very low ratio of developed open space, especially in the northernmost extents of the region;
- The absence of any significant regional recreational open space facility;

### 3.5.2 STRATEGIC LAND USES

The region includes a few prominent land uses of strategic significance to the local as well as the broader urban environment of Tshwane. These include:

- Rosslyn (Automotive City) and
- Sefako Makgatho Health Sciences University
- Tshwane University of Technology (Ga-Rankuwa and Soshanguve)
- George Mukhari Hospital (Ga-Rankuwa)
- Odi Hospital (Mabopane)
- Mabopane Station

### 3.5.3 NODES

The region accommodates a number of retail nodes. These nodes include:

Pretoria North	90 000m <sup>2</sup>
Wonderpark	100 000m <sup>2</sup>
Mabopane/Soshanguve Station	80 000m <sup>2</sup>
Ga-Rankuwa	20 000m <sup>2</sup>
Soshanguve Crossing	40 000m <sup>2</sup>
Thorntree Plaza	16 000m <sup>2</sup>

The Mabopane / Soshanguve Urban Core (80 000m<sup>2</sup>) and Akasia Metropolitan Node (80 000 to 100 000m<sup>2</sup>) can be classified as regional centres. Presently Klip-Kruisfontein and Ga-Rankuwa centres can be classified as community centres (12 000 to 25 000m<sup>2</sup>). The retail sector of the Klipkruisfontein node must still be developed.

A limited amount of office space is found in Akasia and Pretoria North. Industrial nodes are found at Rosslyn/Klerksoord, Mabopane, Soshanguve and Ga-Rankuwa.

### 3.5.4 LINEAR ACTIVITY AREAS

497

The second order road network also functions as an activity spine. These roads connect different areas of concentration. Activity spines that are evident in the region include:

- Portions of Bushveld Road
- Portions of Buitekant Road
- Ragel de Beer
- Parts of President Steyn
- Gerrit Maritz
- Heinrich
- Proposed MCDL Spine
- Willem Cruywagen Street
- Mokhetle Street – Soshanguve H
- M17 – Central City portion
- Waterbok Street
- Doreen Avenue
- Kgware/Molefe Makinta Highway

The following Roads are seen as activity streets where economic activities should be accommodated at certain intersections.

- Parts of Emily Hobhouse
- Parts of Ben Viljoen
- Parts of Burger Avenue
- Chaane Street
- Pilane Street in Ga –Rankuwa
- Aubrey Matlala
- Bokmakierie
- Peter Magano Street
- Setlalentoa Street
- Deetlefs Street
- Aubrey Matlala/Mokhetle (SPAR Street)
- Dikkenbachia Street
- Umphafa Road
- First Avenue



- Loveday street (Mabopane B)
- Dr Monnakgotla street
- Ga-Rankuwa unit 25 (A
- Molathloa Street (A05457)
- Kgolomodumo Street
- Mabotse Road

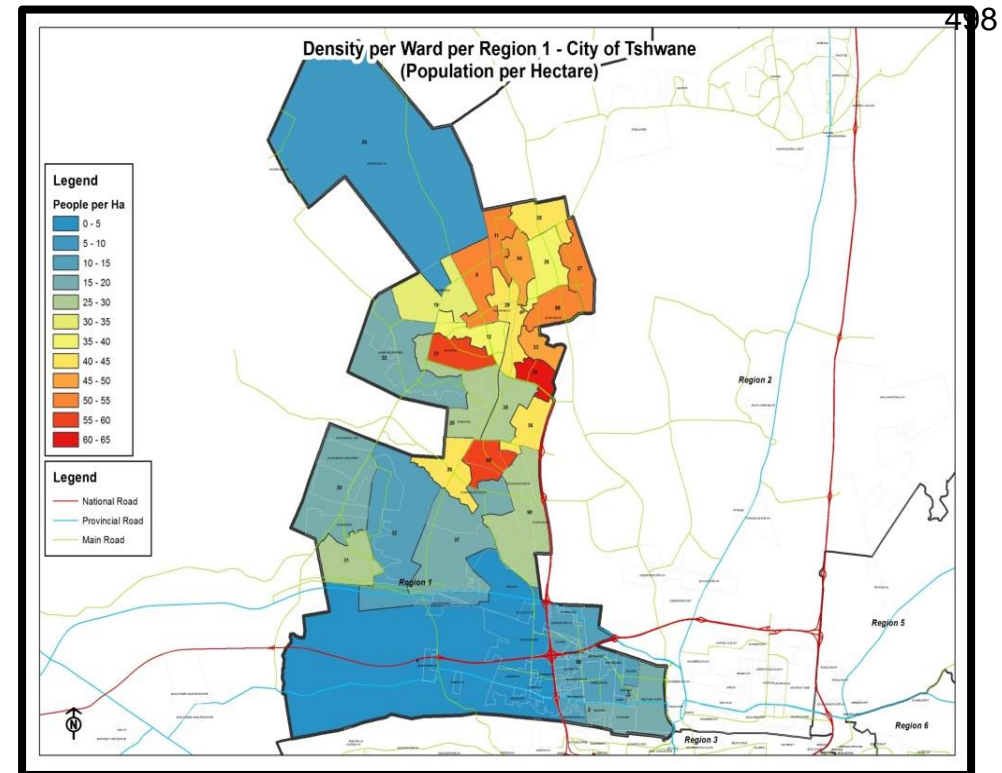
The road running in a North-South direction, along the Soshanguve Municipal Offices, up to Soshanguve HH. All the major Roads on the Eastern side of the Soutpan Road (Road K95) in the following areas (Soshanguve P, R, S, T, V, X, Y) Most of the abovementioned streets do not have direct access and the economic activities should be restricted to certain intersections.

### 3.5.5 RESIDENTIAL

Population densities throughout the region vary between:

- 10 persons per ha in Akasia
- 40 persons per ha in Klip-Kruisfontein and-
- 60 persons per ha in Mabopane.

Formal residential units (north of Rosslyn) are mostly subsidised. There are 52 000 informal units in the region which represent 19% of the total number of houses in the region.



### 3.5.6 MOVEMENT AND TRANSPORT SYSTEM

#### 3.5.6.1 Road network and private transport

The demand for long distance (mobility demand at a metropolitan level) movement in Region 1 is predominantly in a north-south direction to and from the Tshwane CBD.

From a north-south mobility perspective the region is served by the PWV9, K217, K63 although these roads, with the exception of the PWV9, are generally not continuous on a regional level.

There are limited east-west mobility roads in the area and very few that link into and through Region 2 to the N1 freeway. The K8 (R566) is the primary east-west mobility road and is located in the south of Region 1.

Existing development is generally well served by the Class 4 and 5 networks which provide access to the area at a local level.

### 3.5.6.2 Public transport

#### **Rail:**

The Mabopane, Soshanguve and Ga-rankuwa area is well served by commuter rail to and from the Tshwane CBD. The quality of service however needs urgent attention as there is a limited amount of rolling stock available on these lines.

#### **Road based:**

Bus and taxi transport play an important role in transporting passengers to and from the Tshwane CBD on a daily basis. Road based public transport in this area also acts as a feeder to the rail system.

### 3.5.7 SERVICE INFRASTRUCTURE

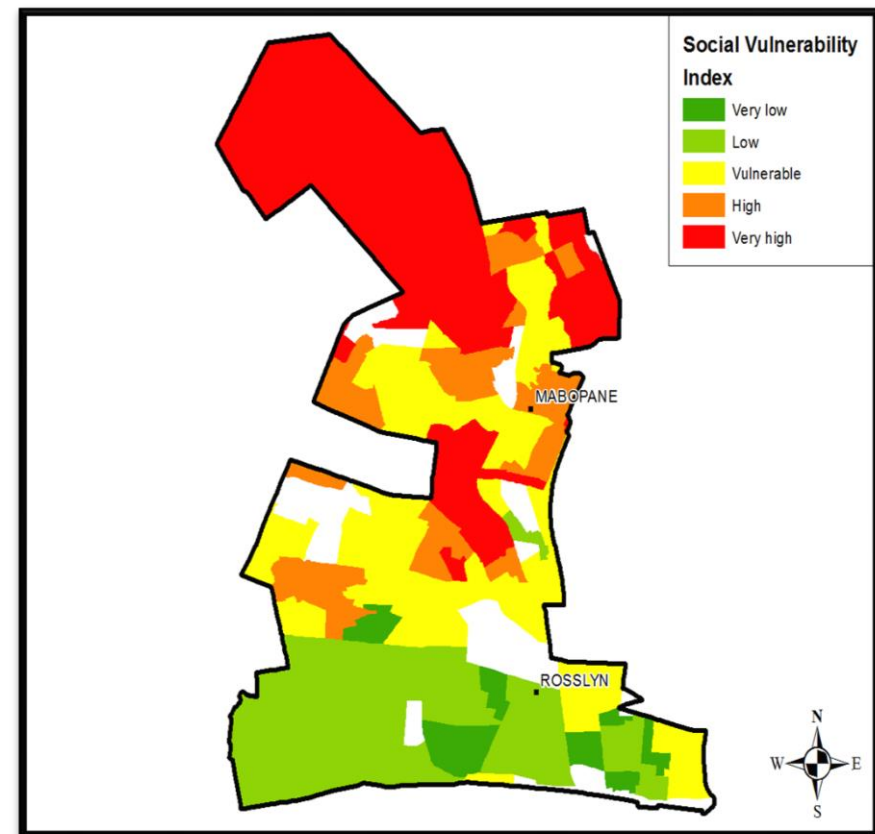
The Northern part of the region is not well provided with service infrastructure, while the Southern part (Akasia / Pretoria-North) is well provided although Pretoria North is currently experiencing a lack of water capacity.

### 3.5.8 REGION 1 SOCIAL VULNERABILITY INDEX

The regional assessment utilised the mapping of spatial hotspots per region based upon the social vulnerability index, as well as the identification of key factors that drive vulnerability per region using the StatsSA and IDP data.

The Northern parts of the region were found to have a social vulnerability score indicative of very high vulnerability (red shades). This area is characterised by high population densities, high poverty rates and informal settlements with little access to basic services. Hot spots of social vulnerability can be observed in Winterveld, Mabopane, Soshanguve and Ga-Rankuwa. The geographic location of these regions falls within the 50

and 100-year flood lines, suggesting that flooding is a potential threat to economic development and service delivery. The region is also prone to thunderstorms and hailstorms (as is the larger CoT region). The central parts of Region 1 has a social vulnerability score of vulnerable to very high vulnerability (yellow and reds shades), and are characterised by clusters of medium to high population, but have formal housing with better access to basic services. The southern part of Region 1 has a social vulnerability score indicating low vulnerability (green shades). This area is characterised by medium-to-high income areas, with a private sector-driven economic sector.





### 3.6 KEY ISSUES AND S.W.O.T. ANALYSIS

In order to determine the key issues and development opportunities for the area a S.W.O.T. analysis for the region was done.

#### 3.6.1 STRENGTHS

- The PWV-2 provides improved regional accessibility to the region.
- The region accommodates the largest industrial area of the metro including the automotive cluster.
- The launch of Rosslyn as the Automotive City provides an opportunity for the development of warehouses, workshops and storage.
- The industrial area provides job opportunities, although due to the specialised nature thereof mainly for skilled workers.
- The region is relatively well served by regional retail centres.
- The region has good rail infrastructure for goods and services transportation
- The region has large parcels of vacant land providing an opportunity for future expansion.
- The region has diverse modes of public transport.
- The fast growing black middle-class in the area with a large disposable income.
- The solid base of tertiary educational facilities.
- Large rural areas, in an attractive natural environment, allowing for establishment of tourism related activities

#### 3.6.2 WEAKNESSES

The region is poorly linked on a regional level with the rest of the Tshwane metropolitan area.

- The Northern areas of the region are far removed from the region's core areas (40km).
- There is no direct first order road linkage with the CBD and this is significant, if one considers the large dependency of the residents on the CBD for jobs and support services.

- The region has a very large population (33% of metro) with low levels of education, high unemployment, very low incomes and poor living standards.
- There is limited private sector investment within the region and backlogs exist in the provision of services.
- There are very little job opportunities for unskilled labourers.
- There is a limited amount of diversification in the housing stock.

#### 3.6.3 OPPORTUNITIES

- The N4, which is on the Maputo corridor presents opportunities for export related activities and possible job creation stimulation.
- The construction of the PWV-9 in the west of Tshwane will greatly improve accessibility of the region to the main economic areas of the province and should be encouraged.
- The introduction of workshops and warehouses to the industrial areas could create jobs for unskilled labourers.
- The availability of strategic land parcels for private investment.
- The dependency of people on the rail service means that the stations are very strong nodes of concentration and this presents opportunities for economic investment.

#### 3.6.4 THREATS

- The trend to expand further north due to the low land values in comparison to areas closer to the core, is a threat to the ideal of compaction and densification

#### 3.6.6 DEVELOPMENT TRENDS

In terms of buildings constructed between 2012 and 2015 the most development took place in the Soshanguve South area. About 100 000 m<sup>2</sup> retail space was also added to Region 1 between 2012 and 2015.

#### TRENDS IN NODES

Soshanguve Crossing (40 000 m<sup>2</sup>) and Wonderpark Shopping Centre (30 000m<sup>2</sup>) were developed or expanded between 2012 and 2015. Both these developments are within nodal areas. These developments will

strengthen the nodal concept and lead to the clustering of mixed uses such as higher residential uses in the future.

### TRENDS ALONG CORRIDORS AND TRANSPORT ORIENTATED DEVELOPMENTS

The corridor areas did not develop at the same pace as the other corridors in the City. This can be explained by the fact that the BRT Line 1 B will only be developed in the next 5 years. The applications received however indicate that a large number of units are going to be constructed around the PRASA rail stations in Ga-Rankuwa and Rosslyn.

Of significance is the current development being undertaken by a private developer around Rosslyn, which caters for low to middle income groups. The development, which will yield between 12 000 and 16 000 housing units, of which 1 300 will be RDP houses, comprises of six townships zoned Residential that will be constructed over a period of seven years with an estimated capital investment of R3.5 billion.

### TRENDS IN PREVIOUSLY DISADVANTAGED AREAS

The areas such as Soshanguve and Mabopane are slowly transforming into fully fledged neighbourhoods with the necessary retail and social services. Development of medium density housing in terms of the bonded market is also taking place for the first time in these townships. This trend is expected to continue. Since the inception of the Re a ga Tshwane program, in May 2013, a large number of informal townships in Region 1 have been formalised.

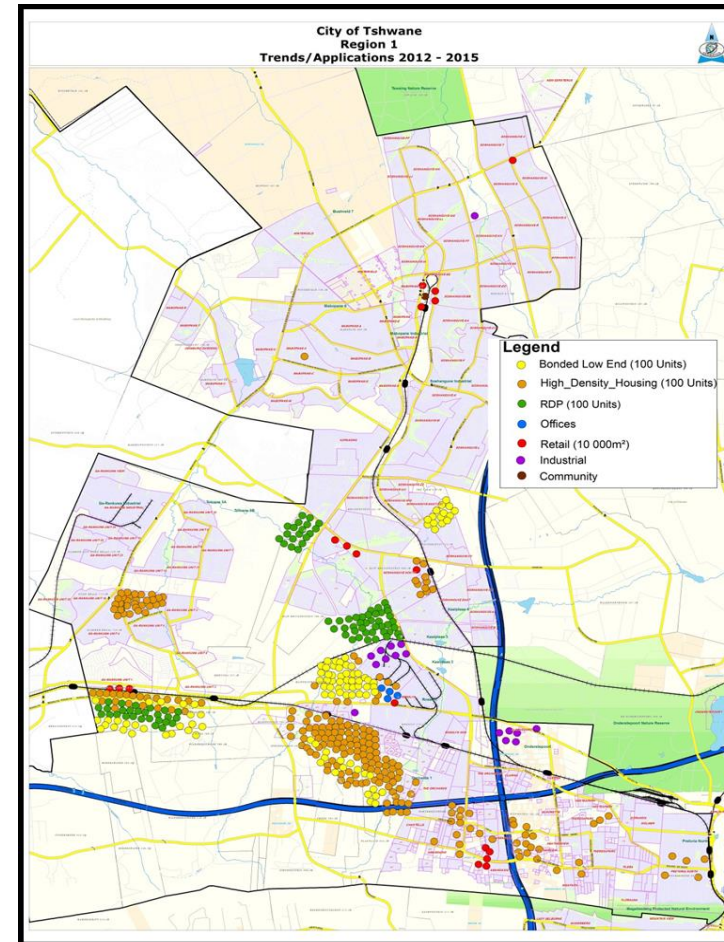
### TRENDS IN SUBURBAN AREAS

In terms of the suburban areas the normal infill development is taking place and densification is expected to take place around the future BRT Line 1 B and around PRASA stations in The Orchards and Rosslyn areas. The first Social housing projects are also planned in Chantelle Extension 39 and Heatherview X42 which is adjacent one of the stations on the proposed Line 1 B.

## TRENDS IN RELATION TO SPATIAL PLANNING

501

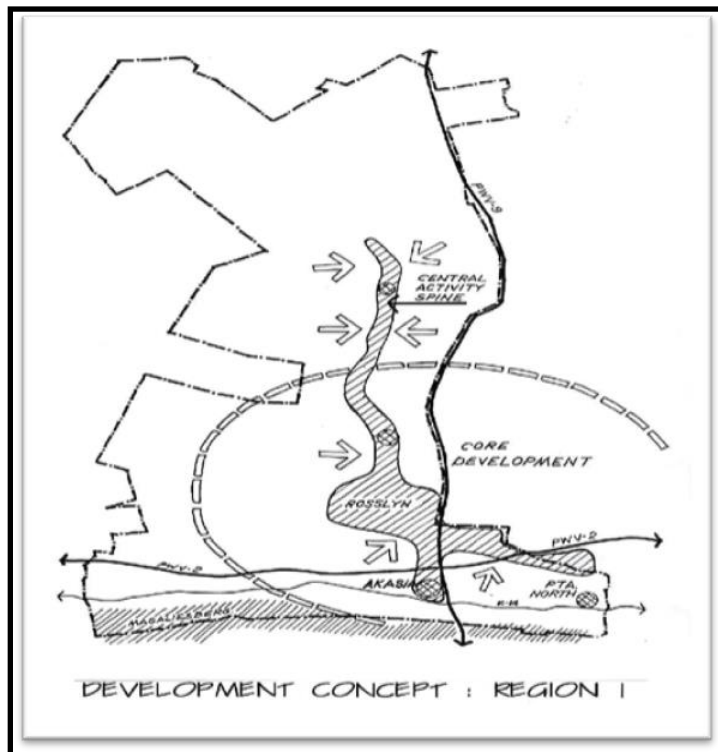
In general, the applications received, indicate that the proposed developments are in line with the spatial planning of Region 1 as prescribed in the Gauteng Spatial Framework, MSDP and the RSDF for Region 1. The future developments in the Region will focus around public transport destinations such as the BRT line 1 and the PRASA stations. The trends also indicated that the most job opportunities will be created in the Rosslyn and Klerksoord area with the focus on the automotive sector.



## PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK

### 4.1 INTRODUCTION

Due to historic land use and settlement policies and previous administrative boundaries, residential settlement in the region has been forced along a North-South development strip, stretching for more than 50km from the core of Tshwane. This is unhealthy in terms of service provision and effective functioning of the urban area. It is therefore proposed that continuous efforts be made to re-direct urban development back in the direction of the core areas. The development concept is illustrated through the following diagram and includes the following main proposals;



Areas that are well served by rail, closer to job opportunities even outside of the current urban boundary should therefore be the focus of future urban development as opposed to areas such as Winterveld and Mabopane.

Region 1 has a limited amount of residential diversity and therefore different types of housing typology should be supported throughout the region. The area around the Akasia Metropolitan Core should be encouraged to develop at higher densities.

The proposals of the MSDF regarding the development of nodes at the railway stations, with a strong social and community facility focus is supported. These nodes are proposed as regional nodes.

Smaller nodes are proposed at intersections of major roads especially in areas north of Rosslyn. Rosslyn, Klerksoord and Ga-Rankuwa represent the main areas of job opportunities and must be strengthened through concentration and proper linkage.

The following section will explain in detail the different components of the Spatial Development Framework as indicated on the map.

### 4.2 METROPOLITAN NODES / TRANSPORT ORIENTATED DEVELOPMENT NODES (TOD)

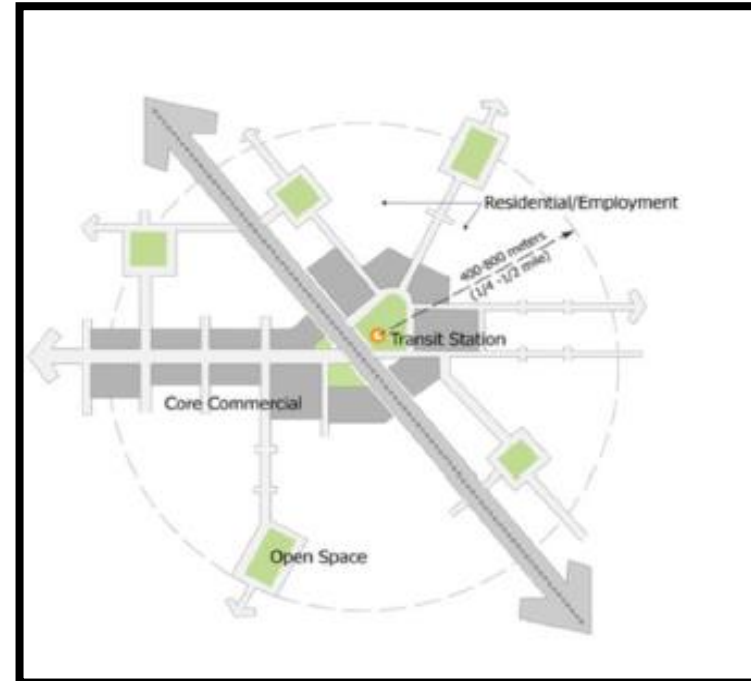


The Metropolitan Spatial Development Framework (MSDF) proposes a number of Metropolitan Cores / Transport Orientated Development and Urban Cores. The Tshwane Retail Strategy is also applicable to these nodal areas of metropolitan importance. Metropolitan Nodes- these are primary nodes of the highest order. These nodes accommodate the highest degree of service

specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Transit-oriented development (TOD) is a mixed-use residential or commercial area designed to maximise access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (train station, metro station, tram stop, or bus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs generally are located within a radius of one-quarter to one-half mile (500 to 900 m) from a transit stop, as this is considered to be an appropriate scale for pedestrians.

In terms of TOD it is important to provide a pedestrian –friendly environment, mixed use areas where the needs of the commuters and residents can be addressed in one place. Small business opportunities must be promoted around the stations and along the trunk route.

It is further important that the mix of landuses around the TOD should generate ridership at different times of the day (Ideally 24 hours). According to the recent SAPOA publication, Developing a Collective Approach to Mixed –use Development in Transit – Orientated Development Precincts “places to work, to live, to learn, to relax and to shop for daily needs should be located as close to the stop/station as possible”. Transit non- supportive uses such as car sales, car washes warehouses, storage and low intensity industrial use should not be supported.



TOD proposal

The following core areas are highlighted in terms of the MSDF:

#### 4.2.1 AKASIA METROPOLITAN NODE

This node has the potential; to become the largest node in the region and the current retail area is about 100 000 m<sup>2</sup> and it is planned to expand it to 120 000 m<sup>2</sup>.

It accommodates higher order land uses such as retail and offices. The area is therefore indicated as a mixed use area. The inclusion of higher density residential will further strengthen the first order character of the node.

The extended Wonderpark Shopping Centre is expected to offer a wider tenant mix and act as a stronger draw card/catalyst for further



development. Future development trends will include offices and motor related uses

#### 4.2.1.2 PRETORIA NORTH / RAINBOW JUNCTION METROPOLITAN NODE

This area consists of a large mixed use area. The focus of development in this node should be on urban renewal and the introduction of higher density residential uses. The area functions as a job opportunity cluster and should be supported through the provision of public transport and support services.

No major redevelopments are foreseen over the short term however there has been a steady rise in the number of medium to high density residential developments around Pretoria North and Surrounds.

#### 4.2.1.3 MABOPANE / SOSHANGUVE URBAN CORE

The Mabopane/Soshanguve urban core accommodates a large retail component i.e. Central City – ; Soshanguve Plaza - and the station component) ( $\pm 80\,000\text{m}^2$ ). The Mabopane/ Soshanguve node is characterised by a large number of informal traders.

The presence of a station presents an opportunity to serve a very wide community, as most residents of the area are dependent on rail for daily transport. The development of a taxi and bus rank facility further strengthens the function of the core as an intermodal public transport precinct and a retail destination

Future development in the node should be focused on social and community services to alleviate poverty and to ensure the possibility of public spending to emphasise development around the node. The existing station area is expected to offer a wider tenant mix and act as a stronger draw card/catalyst for further development.

### 4.3 REGIONAL / LOCAL/SPECIALISED NODES



For these nodes to function properly they should form part of a hierarchy of nodes, directly related to the characteristics of the population it serves.

The hierarchy of retail centers as proposed in terms of the “Retail Strategy” should be applied to the region, subject to need and desirability within the region. The retail strategy can be summarised as follows:

**Renewal Strategy:** In many instances retail facilities have become outdated, the increase in passing traffic has created a problem and in many instances parking facilities are inadequate. The revitalisation, upgrade and improvement of these areas should be encouraged.

Once a particular location or structure is no longer viable for retail purposes it is recommended that the structure be demolished or converted for other uses. This strategy will be driven by the decrease in return on investment in a particular area, large vacancies and the reluctance of retailers to move into a particular area. Urban decay, poor locations and unsafe areas will be the main problems to deal with. This should also form part of a broader revitalisation strategy for areas experiencing urban decay.

A renewal or upgrade strategy should also be followed by shopping centre owners. In most cases shopping centres are in need of a minor upgrade/major maintenance overhaul at intervals of 5 to 7 years.

**Maintenance strategy:** In certain cases shopping centres have become outdated and routine maintenance no longer effective and the upgrading or the redevelopment of the centre imperative. A maintenance strategy will mainly be applicable in already built up areas.

**Expansion strategy:** The change and growth in consumer demand in a particular area as well as new retail offerings will ‘force’ landlords to

expand their existing retail facilities or to include new retail types. This is especially applicable in the case of regional and super regional centres, but can also be relevant for existing business clusters.

Most regional centres continuously expand to make provision for internal growth and to accommodate new retail concepts or trends. Cognisance should be taken of this particular need. This growth will mainly be driven by the already proven success of a particular centre, its location and the needs of the market.

**Infill strategy:** In this instance reference is made to infill in already built up residential areas where retail has been lacking or undersupplied. This type of development will then capitalise on an existing market and will prevent major outflows from a particular area to other shopping destinations.

The most important infill gaps currently exist in the traditionally black urban areas, although it is not necessarily restricted to these areas. There is currently major interest in the development of shopping centres in these areas, and development in these areas should be encouraged. The developments range from small neighbourhood to regional (large community) centres.

It is important to note that once the area is sufficiently serviced, the Infill Strategy must be replaced by the Maintenance and Expansion Strategies, and where new growth occurs, the Follow-the-roofs strategy.

**'Follow-the roofs'/ new growth areas strategy:** This strategy focuses on new growth areas and the provision of retail facilities once a certain threshold level of houses and disposable income is reached.

In the case of a 'follow the roofs' strategy, timing is of critical importance. Should a centre be built too soon the retail performance will be low and casualties, especially amongst the smaller tenants, will be high. Further growth in an area should also be such that the trade area of the proposed centre will fill up sooner rather than later.

**Nodal strategy:** Nodal or urban core strategy is applicable where larger retail facilities will create agglomeration advantages for complementary

retail facilities. Urban and Metropolitan cores are those nodes or urban centres that fulfil a city wide function. These nodes are not stagnant and will expand over time. It is important that these agglomeration nodal developments take place in close proximity of small to super regional centres. Different types of retail facilities are on offer and not all can be accommodated in a traditional shopping centre. The best locational advantages of these complementary retail facilities are in close proximity to the existing regional centres. Other types of retail nodes where agglomeration benefits could be created could also be established.

The agglomeration effect is created by the catalytic nature of regional centres. The node will grow to include a variety of facilities and to reach a stage where the required tenant mix reaches the necessary critical mass.

**Modal interchange strategy:** This type of facility depends mainly on the nature of the commuters, the area as well as the different transport modes used.

Land uses in these areas should be focussed on transport orientated developments, with retail focussing on convenience and day-to-day goods.

Higher density areas will therefore have a higher frequency of nodes in a smaller geographical area. The ideal locality of such nodes will have to be determined through retail studies taking into account all factors that could have a significant impact on the success of such a node.

To ensure that prospective applicants who intend developing retail facilities sufficiently address all aspects in their applications and are thoroughly briefed on all the requirements of the Municipality with regard to such developments, a pre-application consultation should be followed, where the following aspects will be addressed:

- Locational Requirements
- Urban Design
- Pedestrian movements (walkability)
- Parking requirements and layout
- Taxi ranks and public transport facilities
- Informal Trade

- Site development plans
- Retail and traffic impact studies.
- Impact on surrounding land uses

A feasibility study will be required for retail developments of greater than 4000 square metres.

## **4.4 MAJOR EMPLOYMENT OPPORTUNITY AREAS**

### **4.4.1 INDUSTRIAL NODES**

#### **4.4.1.1 Rosslyn / Klerksoord Industrial**

Rosslyn currently accommodates the automotive cluster, with a major focus on the export market. This is one of the Provincial Blue IQ projects and could result in numerous positive spin-offs for the region and the greater metropolitan area.

The advantages of the investment in the area should be used in such a way so as to enable the creation of jobs for unskilled and semi-skilled workers. The development of workshops and commercially orientated land uses should be promoted. Klerksoord should be provided with proper infrastructure to encourage formal industrial development, focused on job creation.

The areas between Rosslyn and Klerksoord as well as the area to the North of the Daan de Wet Nel road and South of the railway line and the Rainbow Junction area are indicated as mixed use areas.

These areas form part of a job opportunity belt connecting Rosslyn in the west with the proposed new Freight Airport in the east (Region 2). The mixed use areas are strategically located on main transportation axis' including rail infrastructure. The mixed use areas would be ideal to accommodate higher order land uses, which are supportive of the manufacturing sector and could include offices, high tech/ light industries, retail and conference facilities.

The proposal for mixed uses in the Rosslyn/ Klerksoord areas should be read in conjunction with the detailed land use proposals of the Development Framework and Master plan for the Automotive City (Section 5.1.8)

#### **4.4.1.2 Ga-Rankuwa Industrial**

The Ga-Rankuwa industrial area was developed in an attempt to create jobs on the border of the previous homelands. Since the abandonment of this policy, the area has struggled for survival due to its peripheral locality. It is also poorly linked with the rest of the metropolitan area and with Rosslyn.

As the area has the potential to create jobs for the region, it is proposed that better linkages via the road network be introduced in order to integrate the industrial area with the N4 and rest of the City. The construction of the K6 and K217 should be prioritised to achieve this goal. Improving public transport via the rail system to the area will contribute to general economic viability of the area.

#### **4.4.1.3 Mabopane Block N Industrial**

The Mabopane industrial area was developed at the same time with the Ga-Rankuwa industrial by former Bophuthatswana government. A large number of properties are vacant and some of those occupied are used for non-industrial purposes. In recent years there has been an increasing number of residential developments in the area (guest houses, tenements and boarding houses). Most vacant properties are still owned by the City.

## **4.5 FUNCTIONAL ROAD CLASSIFICATION AND ACTIVITY MATRIX**

The movement system in an urban environment is literally the arteries of the city – without these linkages there can be no economy, no inter-relatedness, and no “life”.

Movement systems can be used to create access, structure settlements, and promote integration, diversity and mixed land use. Movement (flows of people, finance, goods) defines the energy networks of settlements.

Accordingly, more continuous lines of movement represent planes of greater accessibility and, therefore, become the more desirable connection for intensive use. Significantly, the energy potential contained in lines of movement is released through stopping, not through movement.

Different movement modes have varied patterns of stopping. Accordingly, they establish different rhythms of accessibility and the co-ordination of different modes enables certain points to be strongly reinforced.

By creating a complex and diverse pattern of accessibility, all activities, both large and small, can naturally find a place within the structural system, depending on their need for accessibility and their ability to pay for it. Movement systems, therefore, provide a powerful planning mechanism to bring about mixed, but broadly predictable, patterns of activity, provided activities are allowed to respond to them. Existing and future mass transport routes should also be integrated into this urban system.

The movement system is an enabling feature of a city as it enables the free movement of goods and services through a region. Development trends are directly influenced by accessibility and therefore strategic planning with regard to movement is of utmost importance in the context of a growing metropolitan centre.

Land use changes, where erven are to be consolidated, adjacent to existing nodes in residential areas will be considered on merit. Erven adjacent to roads that link such nodes with mobility or activity function within a residential area may be considered on merit. The merit will be evaluated in terms of the guidelines as set out in this chapter.

However, development along more sections of the spines should only be permitted subject to suitable access which would normally mean from internal roads. Development along the spines should only be permitted subject to access management strategies to protect the mobility function of these roads.

**Transport Corridors** - For the purpose of this RSDF the routes are defined as the approved BRT routes within Region 1. They are regarded as the main public transport channels of the region. Public –transport

orientated – with the prioritising of public transport and Non – Motorised Transport over Private transport. Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.

The development concept is illustrated through the following diagram and includes the following main proposals:

The PWV 9 highway located on the Eastern boundary of Region 1 acts as the main North-South mobility route for the City. The N4 provides the important East-West link in terms of mobility.

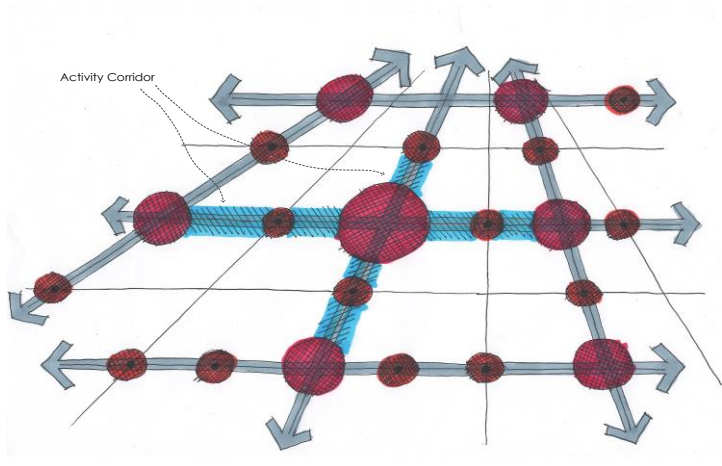
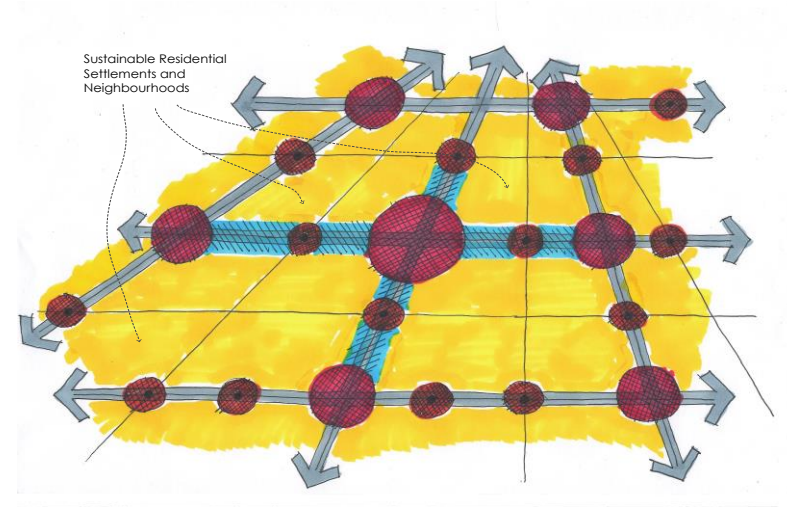
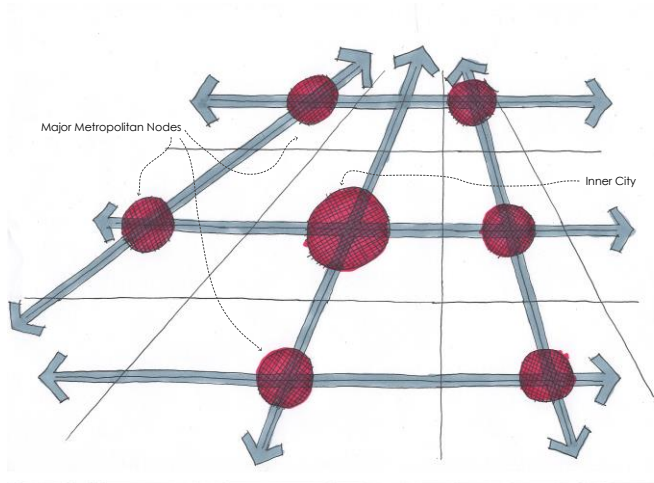
A number of roads in the region are indicated as Activity Spines and Activity Streets. The following Streets are regarded as Activity Spines: part of Bushveld Road, Rachel de Beer, Parts of President Steyn, Gerrit Maritz, Heinrich, Originally Proposed MDCD Spine, and service roads along the R566 in the Klerksoord area. These roads each connect a number of nodes and carries high volumes of traffic.

It then follows that they should support mixed land use along their length. However in order to protect their mobility function, it is recommended that the high traffic generating land uses be accommodated in the nodes. The introduction of higher densities along these spines should be encouraged.




Region 1 comprises of numerous Activity Streets where small scale economic activity occurs in a linear fashion. In the interest of job creation in these areas, it is proposed that the trend be supported from a planning perspective. The residential compatibility of these uses should be monitored to ensure improved living conditions in these northern areas.








## Spatial Concepts for Nodes and Corridors



- The interrelationship between a proposed functional road classification and an activity matrix is illustrated by the following table below:

Functional Road Classification	Land Use	Function and Design	Roads and Streets
<b>Highways</b> 	<ul style="list-style-type: none"> <li>No Direct Access to land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Accommodate mainly national, regional and longer distance metropolitan trips.</li> <li>No traffic lights on these roads</li> <li>Access is restricted to the interchanges only.</li> </ul>	<ul style="list-style-type: none"> <li>N4 (PWV2)</li> <li>PWV 9 / R80 (Mabopane Freeway),</li> <li>Proposed PWV 9 (Western Bypass)</li> </ul>
<b>Transport Corridors (Class II and III)</b>  <p>For the purpose of this RSDF the routes are defined as the approved BRT routes within Region 1 They are regarded as the main public transport channels of the region.</p>	<ul style="list-style-type: none"> <li>Mixed land uses at BRT stations.</li> <li>Mixed uses along sections of trunk route. Mixed uses to front onto trunk route.</li> <li>High density residential along corridor</li> <li>Nodal development with a mixed use character (developments concentrated at intersections and around BRT stations)</li> </ul>	<ul style="list-style-type: none"> <li>Public –transport orientated – with the prioritising of public transport and Non – Motorised Transport over Private transport.</li> <li>Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate.</li> <li>Road space reallocation aiming to re-balance provision between private cars and more sustainable modes such as no motorised transport and the BRT.</li> <li>Limited accommodation for private cars on the Corridor.</li> <li>High accessibility for pedestrians.</li> </ul>	<ul style="list-style-type: none"> <li>Gerrit Maritz</li> <li>Portions of Daan de Wet Nel</li> <li>Rachel de Beer / Brits road</li> <li>Portions of First Avenue</li> <li>Doreen Avenue</li> <li>Portions of Hebron Road</li> <li>Impaka Street</li> </ul>
<b>Mobility Spine (Class II and III)</b>  <p>A Mobility Spine is an arterial along which through traffic flows with minimum interruption (optimal mobility). Much smaller than highways, Mobility Spines are usually made of two lanes of opposite vehicle flow.</p> <p>It serves the purpose of inter-regional and</p>	<ul style="list-style-type: none"> <li>Nodal Development at intersections.</li> <li>Mixed land uses at intersections.</li> </ul>	<ul style="list-style-type: none"> <li>Little (exception) or no direct access to land uses adjoining the spine. Access is usually through side roads and service roads.</li> <li>Involves inter-metropolitan and inter-regional routes</li> <li>No on street parking permitted</li> <li>Very few traffic lights</li> <li>Restricted pedestrian movement</li> </ul>	<ul style="list-style-type: none"> <li>Brits Road West of Hornsnek Road (R513/K14)</li> <li>Doreen Avenue (M20)</li> <li>Daan de Wet Nel</li> <li>Rosslyn Road R566/K8)</li> <li>K216 – Hebron road</li> <li>Molefe Makinta Highway</li> <li>Hornsnek Road (M17/P230-1) K67</li> <li>Soutpan Road (K95/M35))</li> <li>Bushveld Road</li> </ul>

Functional Road Classification	Land Use	Function and Design	Roads and Streets
metropolitan movement.			
<p><b>Mobility Roads</b> </p> <p><b>(Class III and IV)</b></p> <p>Primarily serves intra-metropolitan traffic. While this route is characterised by through traffic, trends indicate pockets of mixed use developments locate alongside.</p> <p>It serves as the most important linkages between the Metropolitan Activity Areas (Capital Core/Metropolitan Cores/Urban Cores/Specialised Activity Areas)</p>	<ul style="list-style-type: none"> <li>• Medium to high density residential as per density map.</li> <li>• Nodal development with a mixed use character</li> </ul>	<ul style="list-style-type: none"> <li>• Limited direct access permitted (not frequent)</li> <li>• Services roads to enhance access opportunities</li> <li>• On street parking also permitted close to major intersections and in the vicinity of significant nodes only</li> <li>• Plays a collector and distributor function though trips are of a short distance</li> <li>• Pedestrian movement along the route in various parts</li> <li>• Public transport very important along Mobility Roads</li> <li>• Provide public transport facilities</li> </ul>	<ul style="list-style-type: none"> <li>• First Avenue</li> <li>• Hardie Muller Road</li> <li>• Ruth First</li> <li>• K2 – Mopanie/ Bushveld</li> <li>• K214</li> <li>• Buitekant Road</li> </ul>
<p><b>Activity Spine</b> </p> <p><b>(Class III and IV)</b></p> <p>These streets are characterised by slower moving traffic due to the nature of activity along the street (activity is of paramount importance, mobility is compromised to allow the activity). The street provides a focus for various non-residential and medium to higher density residential developments that create a vibrancy and specific identity.</p>	<ul style="list-style-type: none"> <li>• Mixed uses along the spine</li> <li>• Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>• Urban design guidelines important to guide the development along the spine.</li> </ul>	<ul style="list-style-type: none"> <li>• Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate</li> <li>• High accessibility to land and normally only gaining access from a service road.</li> <li>• Mixed land uses along service roads</li> <li>• High density development with mixed uses must be promoted in suitable locations along these routes.</li> <li>• On-street parking where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>• Portions of Bushveld Road</li> <li>• Portions of Buitekant Road</li> <li>• Ragel de Beer</li> <li>• Parts of President Steyn</li> <li>• Gerrit Maritz</li> <li>• Heinrich</li> <li>• Proposed MCDL Spine</li> <li>• Willem Cruywagen Street</li> <li>• Mokhetle Street – Soshanguve H</li> <li>• M17 – Central City portion</li> <li>• Waterbok Street</li> <li>• Doreen Avenue</li> <li>• Kgware/Molefe Makinta Highway</li> </ul>

Functional Road Classification	Land Use	Function and Design	Roads and Streets	511
<b>Activity Street</b>  <b>(Class IV and V)</b> Local collector road within suburb, characterised by small scale (in keeping with the existing character of surrounding residential developments) local economic activities and social amenities	<ul style="list-style-type: none"> <li>• Low-intensity mixed land uses with a focus on community services and economic opportunities</li> <li>• Low to medium density residential developments</li> <li>• Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>• Urban design guidelines important to guide the development along the street.</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (60km/h and less)</li> <li>• Mixed land uses along service roads</li> <li>• Must be provision for side walks</li> <li>• Parking on site</li> <li>• These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>• Parts of Emily Hobhouse</li> <li>• Parts of Ben Viljoen</li> <li>• Parts of Burger Avenue</li> <li>• Chaane Street</li> <li>• Pilane Street in Ga –Rankuwa</li> <li>• Aubrey Matlala</li> <li>• Bokmakierie</li> <li>• Peter Magano Street</li> <li>• Setlalentoa Street</li> <li>• Deetlefs Street</li> <li>• Aubrey Matlala/Mokhetle (SPAR Street)</li> <li>• Diffenbachia Street</li> <li>• Umphafa Road</li> <li>• Thaba – Nkwe Street</li> </ul>	
<b>Residential Collector (Class IV a and b)</b> Local collector road within suburb, characterised by  small scale social amenities	<ul style="list-style-type: none"> <li>• Low-intensity community services and as per Council consent</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (50km/h and less)</li> <li>• Must be provision for side walks</li> <li>• Parking on site</li> <li>• These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>• As per Nodes and Corridor Map</li> </ul>	
<b>Residential collector (Class V)</b>  Local road within suburb	<ul style="list-style-type: none"> <li>• Residential Street</li> <li>• Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (40km/h and less)</li> <li>• Parking on site</li> <li>• Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>• As per Nodes and Corridor Map</li> </ul>	

## LAND USES

The desired activities along the activity corridors, streets and nodes is illustrated by the following notation and definition must be used as a guideline and must be read in conjunction with the Nodes and Corridor Map at the end of this section.

### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)



Transit-oriented development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (train station, metro station, tram stop, or bus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs generally are located within a radius of one-quarter to one-half mile (500 to 900 m) from a transit stop, as this is considered to be an appropriate scale for pedestrians.

### NODE



A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport nodes such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

## EMERGING NODES



Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

### RETAIL



Areas of concentration of mixed land uses with the focus on retail

### MIXED USES



Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional ect. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. A mixed-use could refer to retail at street level, institutional on the floor above and residential on the upper floors, or only use per erf. Principles regarding retail, commercial and industrial uses / rights are still applicable as indicated in this document. Mixed land use in an industrial area could include industry, commercial and retail uses.

### OFFICE USES



Means land and buildings used as an office, retail industry, places of refreshment, fitness centre, hairdresser, nail bar, medical consulting rooms, medical



workshops such as, dental technician, prosthetist, orthodontist, pathologists, optometrist technician, or for other businesses such as inter alia beauty salon, pet salon, beauty/health spa, funeral undertaker, place of instruction, uses subservient to the main use. Uses must be compatible to the surrounding area and must focus on serving the local community.

The suitability of the land uses along these streets will be dependent on the character of the Street and will be at the discretion of the municipality.

## INDUSTRIAL USES



Light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

## GENERAL PRINCIPLES IN NODES, CORRIDORS AND MIXED USES AREAS

One of the main concerns for non-residential development and high density development within residential areas is the compatibility and interaction of land use changes to the abutting residential uses. The existing characteristics of an area and street plays an important role in the determination of land uses that is considered appropriate and are compatible with the residential component. The permitted land uses shall only be accommodated along the street up to the mid-block line of blocks running parallel to a street or adjacent service lane.

The following general principles are applicable:

- Encourage development characteristics that spread economic impact (SPLUMA Objective, promote economic and social inclusion).
- A “walkable” environment- place commercial, housing, jobs, parks and civic uses within walking distance of the community and transit stops ( National Development Plan, GSDF, Principle)
- Encourage infill and redevelopment along activity streets corridors within existing neighbourhoods.
- A mix of residential, retail, commercial and community uses needed along activity corridors and streets. (SPLUMA Principle 7(a) Spatial sustainability).
- Activity streets must be frontage streets, with emphasis on public interface.
- Locate jobs, retail and commercial near residences to reduce car dependence. (National Development Plan, GSDF, Principle)

- Encourage active interfaces between buildings and streets.
- Larger uses should locate at the edge of the circle allowing a fine grain mix of use at the centre
- Residential and non-residential uses combined within the same or adjacent blocks.
- Encourage vertical mixing of uses.



Source: City of Tshwane; West Capital Urban Design Framework 2014

The following criteria shall determine if a particular erf is suitable to accommodate a permitted land use change:

- Acceptable safe access possible
- Adequate on-site parking available
- Adequate space available for landscaping purposes
- Acceptable impact on residential component
- Site characteristics
- Availability of services

The following Development Guidelines shall be used:

### FAR

- Shall be determined by erf size, parking to be provided on site and the influence of privacy with regard to the surrounding residential properties.

## HEIGHT

- 2 storeys or higher, depending on the locality and surrounding land uses. Clause 26(2) (b) of the Tshwane Town Planning Scheme, 2008, shall be excluded.
- Relate building height to street width and intended character. Urban centres are characterised by a strong sense of enclosure with street spaces that are generally lined by buildings set along the front property boundary.
- Solar access to adjacent structures, situated to the south of a property to be developed, shall be protected as far as possible from the adjacent structure.

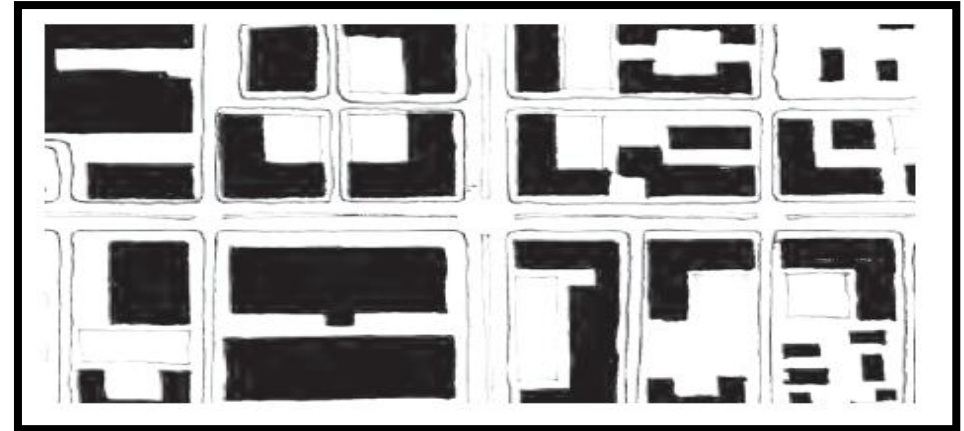


Source: City of Tshwane: Centurion CBD Framework, 2013

- To ensure privacy, the following is applicable:
  - No balconies shall be established on the side of the building abutting a residential property.
  - Windows shall either be located at such height or distance from the boundary of a residential property, that they do not enable overlooking.

## BUILDING PLACEMENT

514



- Building position is important in the development of the complete and liveable street concept.
- Buildings must be placed as close as possible on the street boundary.
- Building should be staggered along street boundaries in order to break long street frontages.
- Orient buildings to sidewalks
- Place buildings at the sidewalk (perimeter blocks)
- Street and building configuration should be designed to create vistas, or to terminate views with a landmark feature, building, or public space.
- Buildings at intersections within the corridor and activity street should provide for landmark features.

## BUILDING LINES

- Build to lines or minimum 2 meter building lines on street boundaries.
- Buildings must be placed as close as possible to the erf boundary adjoining streets.
- Adequate side building lines should be imposed to protect the neighbouring residential component.
- The area within the building line should be used mainly for parking purposes and landscaping. Minimum 16% of the area should be covered with soft surfaces.

## PARKING

- All parking shall be accommodated on the erf
- No On-street parking shall be allowed.
- On- street only in TOD.
- Carports shall be located in such a manner that it is not visible from the street
- Parking relaxations will be applicable in TOD and Corridors.
- Parking ratios per area and per application.
- Developers should determine their own parking ratio in certain areas.
- Parking ratio's will depend on parking available.
- **Discourage the use of private car through** reduced private parking ratios
- Shared parking can be allowed regardless of whether the zoning ordinance requires any off-street parking, or whether public parking is available
- Parking should be provided sub-surface as far possible.

## PHYSICAL BARRIERS

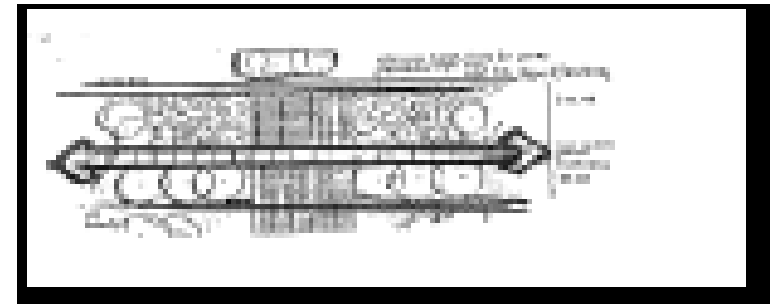
- Walls abutting neighbouring residential properties shall be maintenance free on the side of the adjacent property and constructed in brickwork. The wall shall at least be 2,1m in height to offer more protection to the abutting residential activity. No prefabricated concrete walls are allowed.
- A well designed and articulated boundary wall of brick should be constructed on the other boundaries of the site. No prefabricated concrete walls are allowed. The boundary wall should be minimum of 2 meters high and a maximum of 3,0 meters high and should be maintenance free on the side of the adjacent property;

- Physical barriers along the street boundaries shall be semi-transparent to enhance landscaping, architecture and aesthetics. Set back upper levels of tall buildings to help create a pedestrian scale at street level and to mitigate unwanted wind effects.



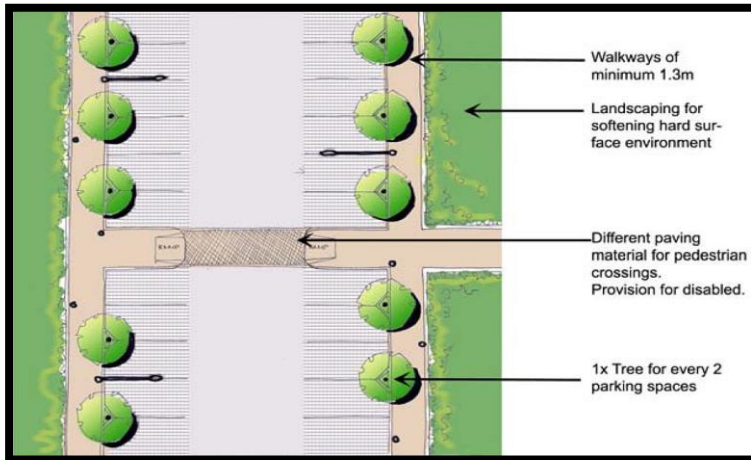
## LANDSCAPING

- Indigenous landscaping shall be incorporated.
- The road reserve between the erf boundaries and the street shall be landscaped in accordance with the landscape development plan. The landscaping should include design measures to prevent on-street parking and include a walkway (at least 2 m wide) to ensure pedestrian safety.



- One tree shall be provided for every two parking spaces.
- Soft landscaping shall form part of parking areas.





## ADVERTISING

- Advertising must be as per Council policy and guidelines.

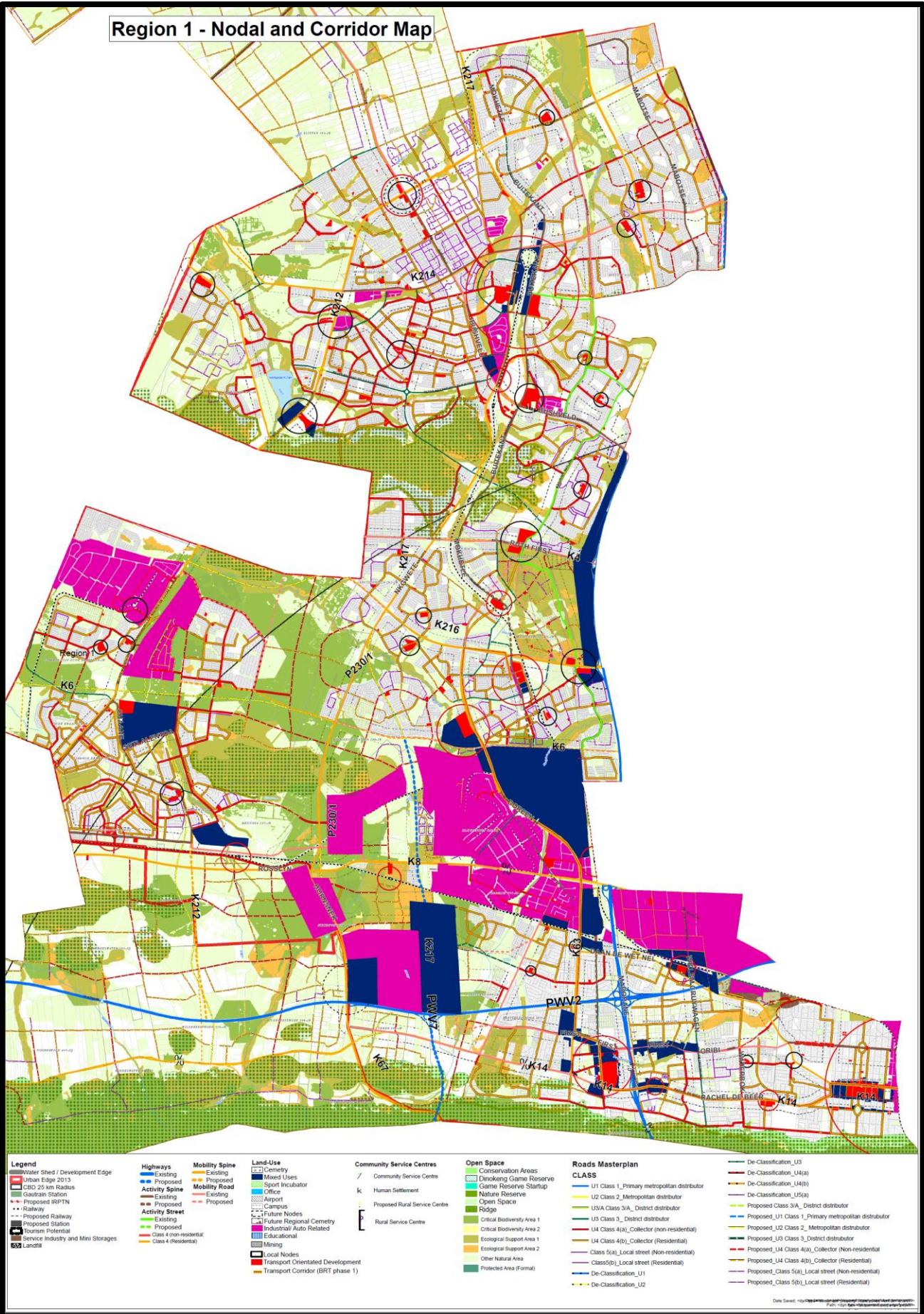
## HEALTH MEASUREMENTS

- Air-conditioning units or compressors shall not be mounted to the exterior walls of buildings without the prior consent of the Municipality.
- Any requirements for air pollution-, noise abatement- or health measures set by Municipality shall be complied with to the satisfaction of the Municipality without any costs to the Municipality.
- All refuse areas and service yards shall be screened of with a solid wall and /or landscaping. Refuse areas shall be placed as far as possible from any residential property.





# Region 1 - Nodal and Corridor Map



## 4.6 RESIDENTIAL

### Current City Form of Tshwane

Due to the legacy of Apartheid, the current Metropolitan structure is characterised by a fragmented and dysfunctional spatial form, with extensive urban Sprawl and low densities.

### Solutions for Tshwane

- Reverse the spatial patterns of apartheid.
- Plan for compact cities and transport corridors.
- Compact cities – more infill and multi –story developments, mix of land uses.
- Densification must be public transport orientated. - focus on commuter Rail and BRT.
- Integrate land –use planning and transport planning.
- Enhance economic development in previously disadvantaged townships thus reducing the need to travel.
- Public transport must be prioritised over private transport.
- Embrace BRT's monorails, NMT, Pedestrians.
- Discourage private car usage by reducing the number of vehicles on the road.

Residential development within Region 1 should be guided by the principles contained in the Tshwane Compaction and Densification Strategy. The core principles of this strategy are:

- Densification must contribute to the overall structure and functionality of the metropolitan area in that it takes place in a balanced, focussed, structured and meaningful way
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.
- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as

part of a larger program aimed at creating a suitable high density environment

- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future
- Areas targeted for densification should be well served by social facilities such as education, open space, recreation etc. or should have the potential to be well served by social facilities
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Retain, enhance and encourage cultural assets
- Densities for Social housing developments, old age homes and retirement centres, hostels and student accommodation will be evaluated on their own merits were location and accessibility to social infrastructure will play an important role.

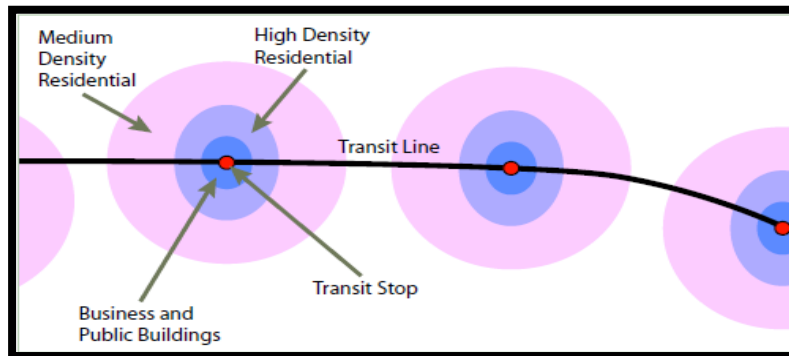
Another important underlying principle of the Tshwane Compaction and Densification Strategy, is that higher density developments should not merely be dictated by density, but that design and typology considerations should be of critical importance, as these are the factors that in reality make either a positive or negative contribution to the overall quality of the environment in which they are situated. Densification and compaction is not an end in itself, but a means to achieve an overall efficient, integrated and sustainable metropolitan area. Densification proposals within Region 1 should therefore not be done for the sake of densification, but to achieve a range of other goals, such as:

- Increasing accessibility to public transport facilities
- Creating the necessary population thresholds for economic growth and viable business development (especially small and medium sized enterprises) in specific areas
- minimising distances between home and work (i.e. integration of higher densities with employment opportunities)
- containing outward expansion of the urban footprint



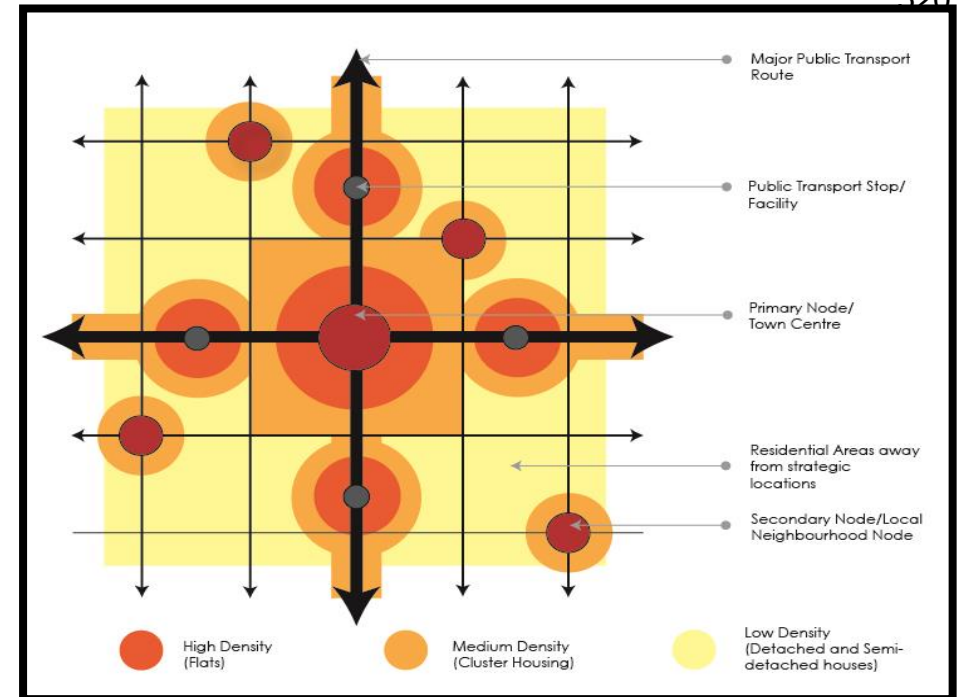
The benefits of Densification and Intensification:

- **Concentrations of people** in areas of high urban activity
  - Access to opportunities increases
  - Population threshold increases which means that a viable market for business and transport is established
  - Density is significant for the economic performance of a city
- **Urban efficiency**
  - Reduced travel distances and time
  - Reduced cost of Engineering Infrastructure
  - Public transport becomes more viable
  - High density assures the maximisation of public investments including infrastructure, services and transportation and allows efficient utilisation of land



The strategy proposes four key density zones, namely:

- Concentration Zones
- Linear Zones
- Suburban Densification Zones
- Low Density zones



### Criteria for densification

Applications for densification shall be evaluated against the following criteria: proposed form of property, height, whether sufficient parking is available, privacy of adjoining owners, size of stands and access, Northern orientation, services available, and unit typology, size of the property, open space.

Densification throughout the city will still be in accordance with availability of services and geological conditions such as dolomite restrictions.

Refer to the density map for a schematic illustration of densification; it is important to note that walking distances to public transport will be applied in the evaluation of density applications. All densification applications should adhere to the above mentioned criteria and development guidelines as indicated as in 4.5.

#### 4.6.1 CONCENTRATION ZONES



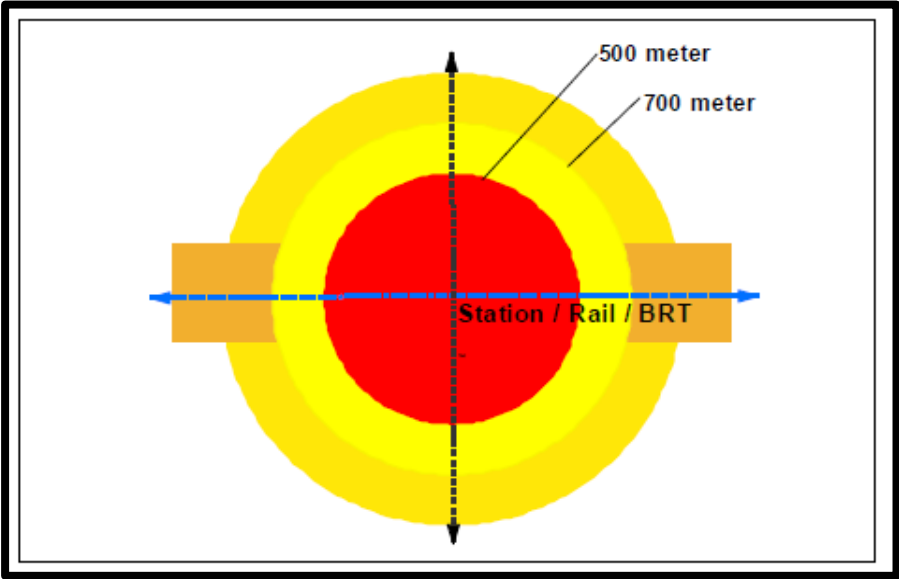
(Less than 500 m walking distance: density + 200 units/ha)

The **Concentration Zones** are the primary focus areas for high density residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within a 700m walking radius of a railway station or a major public transport node.



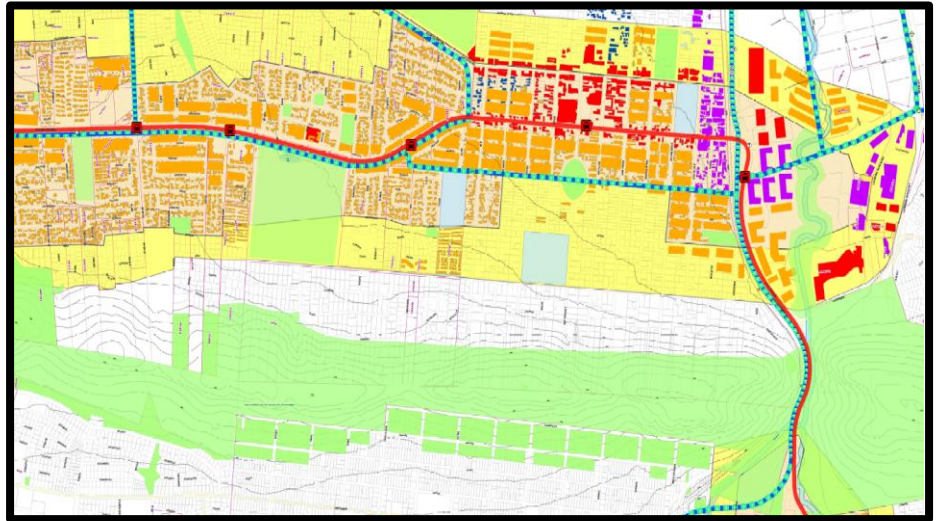
(500 m up to 700m walking distance: density 120 units/ha)



The areas around the existing Gautrain and PRASA railway stations and around the proposed BRT / ITPN stations have been earmarked for higher density transit promotion zones. Intensification should take place within a 900m walking radius of a BRT / IPTN station. Densities of + 200 units /ha in nodes and around rail stations will be applicable for the first 500 m walking distance and up to 120 units / ha for the area between 500 m and 900 m. The walking distances will be determined by the distance between stations. The closer the station are to one another the shorter the walking distances will be.

Refer to Chapter 2 regarding the first phase on the BRT / ITPN trunk routes. The Akasia node to the CBD via the Pretoria North node will be the focus of residential densification within Region 1.

The concentration zones and linear zones call for a drastic change in the built environment in terms of densities, typologies, built form and urban design, moving away from suburban typologies in these areas toward a more urban fabric and typologies.



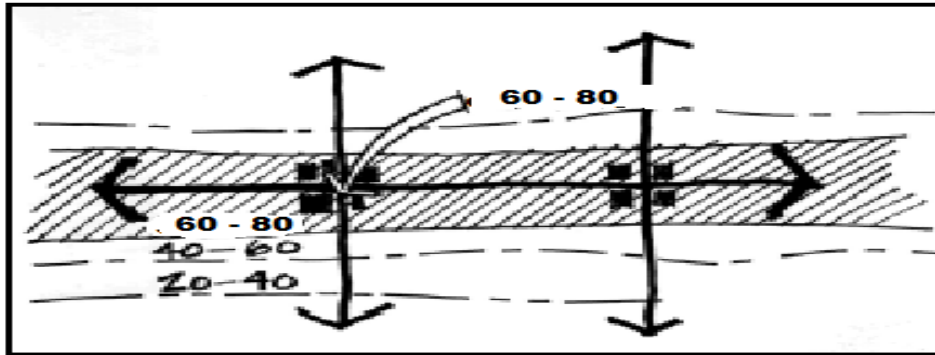
Typical BRT corridor Densification around Rachel de Beer BRT Trunk

**High density Zones** in Region 1 are focussed on the Metropolitan Cores and Urban Cores. These are the Mabopane, Klip/Kruisfontein Urban Cores, the Akasia Metropolitan Core and the Pretoria North Metropolitan Core.





high volumes of traffic to areas such as Zones of Concentration and Transit Promotion Zones and thus encourage the feasibility of public transport on strategic routes. The linear zones also connect the urban core areas with one another within the City.



The identification of these linear zones should follow a focussed, selective and phased approach, where only the most important routes are identified in the short term. This is necessary in order to achieve a high level of concentration along each of these routes rather than dispersing development along too many routes, and then the critical mass for public transport viability is never achieved. In terms of the densification strategy, linear zones refer specifically to high activity areas that are located along major routes. The main aim of the routes should be to encourage public transport.

In addition to the central spine two other areas of concentration and infill are proposed along the PWV-9 at the intersection of this road with the K2 and between the K4 and K216. The focus of these areas will be on the provision of higher density residential development and mixed uses.

Densification along the activity spines of the southern parts of the region is encouraged and in the Wolmer / Pretoria North area. Appropriate densification for these areas should be encouraged taking into account the present character of the area.

#### 4.6.3 SUBURBAN DENSIFICATION ZONES



(density 10 – 25 units/ha)

Suburban Densification Zones are those existing suburban areas where there is potential for moderate densification because of the area's strategic location within the city (within a 25 km radius of the City). This zone makes for good application in areas that are close to places of employment, major retail centres and prominent transport routes, but where it is still desirable and warranted to maintain a suburban character. These areas are indicated in yellow on the Densification Map. The maximum density in these areas will be restricted to a maximum 25 dwelling units per hectare. The exceptions will be the nodal / core areas (as indicated on the densification map) within the suburban areas where densities of up to 200 units / dwelling-units per hectare can be supported depending on available public transport and social amenities. Activity streets in suburban areas as indicated in the RSDF also earmarked for densification up to 80/units per hectare.

Whereas the Concentration and Linear Zones proposes a particular urban environment, both the Suburban Densification Zone and the Low Density Zone are distinctly suburban zones.

Within Suburban Densification areas the core principles of densification are:

- Densification must contribute to the provision of lifestyle choices within the specific area. As an example provision must be made to sustain all the lifestyle phases from young working people and students, families with young children, and elderly people.
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.
- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as



part of a larger program aimed at creating a suitable high density environment.

- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future. Pedestrianisation must be included into the densification process.
- Areas targeted for densification should be well served by social facilities such as education, place of public worship open space, recreation etc. or should have the potential to be well served by social facilities. Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase.
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Encourage community and stakeholder collaboration.
- Retain, enhance and encourage cultural assets

The various housing and densification typologies must be employed in a structured manner within this Zone, with cluster housing and apartments located adjacent to strategic points within the neighbourhood such as local nodes, public transport facilities on a major public transport route, education facilities and parks. These developments shall be subject to urban design principles and site development plans. Sustainable neighbourhood planning seeks to achieve long-term socially, environmentally and economically viable communities. The main objective is to create pleasant, safe and sustainable residential neighbourhoods with a mix of residential typologies, community and social facilities, recreation areas such as parks, sports fields and playgrounds, access to public transport for those who need it, and local economic opportunities.

*“A successful and sustainable neighbourhood is a product of the distances people have to walk to access daily facilities, the presence of a sufficient range of such facilities to support their needs, and places and spaces where a variety of activities can take place.”<sup>1</sup>*

In essence, within this zone the urban form remains the same as it currently is, only with an increase in general density and a change in typology and density around strategic points within these areas. Greenfields development (farm

portions and small holdings) will be considered on merit and the general principles of densification will apply.

Infill of the Garankuwa area and the Klip/ Kruisfontein area could alleviate residential backlog and should be encouraged.

#### 4.6.4 LOW-DENSITY ZONES



(up to 10 units/ha)

Low Density Zones are those areas in the city where lower densities are more desirable, either because of location or *bona fide* special circumstances. The majority of these zones are located in the peripheral areas.

These zones are removed from opportunities such as economic and employment nodes and mass transportation opportunities and are characterised by long travelling distances to areas of employment. In these zones, higher densities serve no purpose or could actually be detrimental to the functionality of the city, and it is preferable not to encourage population concentrations in these zones.

The Low Density Zone however also includes areas that are more centrally placed, but which have special characteristics that need to be preserved, and hence a low density is considered justifiable. These include areas along ridges, where lower densities are more conducive to a built form that is sensitive to the ridge quality from a visual point of view, including issues such as skyline, further spacing of buildings etc. These low density areas will also serve to provide visual relief in between adjoining higher density areas.

Ideally, a Low Density Zone's density should not exceed 10 dwelling units per hectare. Encouraging low densities in these areas is also important to ensure that the higher densities are directed and actually take place where they are desirable and required. The following areas have been identified within Region 1 as Low Density Zones, even where a density of less than 10 units per hectare shall prevail. Even directly adjacent to the Magaliesberg Natural Protected Area, one dwelling unit per 1000 m<sup>2</sup> and undeveloped suburban areas outside the 25 km radius of the CBD.

<sup>1</sup> Source: Homes and Communities Agency: Urban Design Compendium 1

#### 4.6.5 RURAL DIVISIONS



Divisions of farm portions and agricultural holdings will be according to the densification map. The basic principle applicable will be that division of up to 1 ha and more will be allowed in areas with Council approved piped water. Divisions of 5000 m<sup>2</sup> will only be accommodated in certain areas as indicated on the map (Divisions of 5 ha and more will be supported in areas without piped water except in cases of high agricultural potential and environmentally sensitive areas. Divisions must take flood lines and water courses into account when applied for.

Notation	Size	Services
	5000 m <sup>2</sup>	Piped water
	1 ha	Piped water
	2 ha	Piped water
	4ha – 5ha	Piped or Borehole Water
	8.5 ha	Piped or Borehole Water
	10 ha	Piped or Borehole Water
	+20 ha	Piped or Borehole Water

#### 4.7 SUSTAINABLE HUMAN SETTLEMENTS

Sustainable Human Settlements should be provided in accordance with the guidelines as set out in the above Tshwane Compaction and Densification Strategy. Such settlements should be developed within concentration zones and along linier zones with the supporting densities as prescribed. Further human settlements should be provided in closes proximity of social amenities and public transport.

#### 4.7.1 INFORMAL SETTLEMENT UPGRADES AND RELOCATION

In Region 1 about 52 000 informal units exist and need basic services.

- Existing informal settlements that fall outside of the urban edge should not be provided with in-situ upgrading. They should rather be relocated to suitable areas within the urban edge.
- Informal settlements should only be relocated to areas that are geotechnically sound and do not fall within a flood line.
- Compaction, infill and densification should serve as key guiding principles for both in-situ upgrading and relocations.
- Informal settlement management plans should incorporate landscape planning

#### 4.7.2 SOCIAL HOUSING

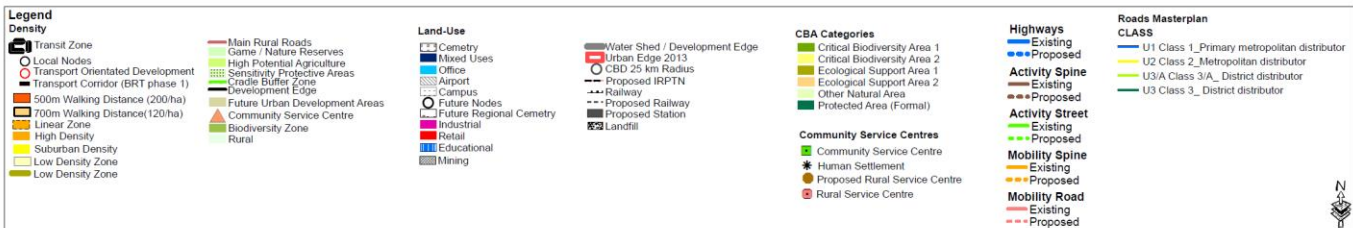


- Housing should provide a range of typologies within strategic nodes in order to address both social and economic restructuring;
- Housing typologies should allow for diversity and significantly higher density than the current densities;
- Densification in order to address the green economy of spatial planning;
- Brownfields development is preferable to greenfields development in order to achieve infill development;
- Compaction and rejuvenation of decaying areas (where applicable);
- Housing location should be targeted towards significant places of work opportunity, i.e. metropolitan nodes and primarily urban cores;

- Housing developments should include the provision of or be located next to safe and efficient linkages with space for pedestrians and cyclists;
- Housing location should be well planned to ensure connectivity via public transport to other places of significance in the metropolitan area;
- Urban design, landscaping and streetscaping should be incorporated in housing schemes;
- Social housing should be an effective component of sustainable human settlements, i.e. providing or being located close to social amenities and facilities;
- Mixed-use residential buildings should be implemented where possible, allowing for an optimal use of all available resources, supporting transport-orientated development and providing a sustainable living environment.
- Ensure that residential development (both affordable and otherwise) creates sustainable neighbourhoods rather than just housing project areas;
- Focus on the provision of affordable housing in accessible, spatially and functionally integrated locations rather than creating free-standing peripheral islands of housing;
- Have a coherent and targeted approach to the upgrading, formalisation or relocation of informal settlements.

Movement and Connectivity – see Paragraph 2.4 for more information on this and transport orientated development. Transport orientated development supports the concept of the “20 Minute Neighbourhood” where all urban facilities and services can be reached within a 20 minute travelling period.





## 4.7 MOVEMENT SYSTEM

During the development of the RSDFs, the spatial location of proposed land uses is considered (DELETED). It is essential that the transportation network and services can support the land use proposals of the RSDF. A strategic assessment of the transportation needs was thus undertaken to identify possible transportation system interventions and refinements. The proposals are intended to serve as a point of departure for further more detailed feasibility studies.

### 4.7.1 RSDF MOVEMENT SYSTEM PROPOSALS

Since the RSDFs are primarily concerned with the physical environment and aim to guide development, the transportation aspects in this section focus on physical infrastructure and not public transport services. Public transport servicing and scheduling should be guided by the approved CIPT.

Furthermore, the proposals made are largely aligned with existing planning and aim to:

- Supplement existing transportation planning.
- Recommend large scale intervention.
- Scrutinise existing transportation planning (infrastructure).

All proposals made in this section are of a principle nature and require to be investigated in more detail to establish feasibility. Therefore the proposals are intended to inform the transportation planning process in an attempt to ensure integrated land use and transportation planning.

#### 4.7.1.1 Rail

#### Passenger Rail Agency of South Africa (PRASA) network planning proposals

PRASA priority corridor in the next 5 years in Gauteng is the Mabopane - Johannesburg/Soweto line. The proposal includes upgrading of the

capacity in terms of rolling stock and lines. New stations are also planned within this upgrading phase.



Furthermore, a rail extension from Mabopane to Hammanskraal is proposed as well as an extension into the Winterveld area in the future. The proposed link between Mabopane and Hammanskraal/Temba is supported, as this will provide a high capacity/mobility link between job opportunities at Babelegi and residential areas.

The extension of the rail link into the Winterveld area is questioned as this could promote further sprawl.

The provision of additional stations to the south of Mabopane is supported as this will enhance the role that rail plays in that area and reduce the load on road based public transport services.

#### *Road based feeder system for Rail.*

- The provision of road based public transport facilities at Akasiaboom Station could improve the inter-modal operation of the public transport system and is supported and will further endorse the rationalisation plan.



- The provision of road based facilities at other stations and in particular, new stations, is essential to promote an integrated transport system.
- Rail has the potential to serve the densification of Eldorette, Winterneest, Clarina, Wolmer and Pretoria North regions at three existing stations namely, Winterneest, Wolmer, Pretoria North and Wonderboom Station.
- The accessibility of these stations from these areas, and facilities at the stations must be investigated and improved if necessary.

#### 4.7.1.2 Road network

There are currently several important strategic road links that are needed and justified. Some of these are planned to be implemented using public and private funding in partnerships. In Region 1 the following strategic projects are indicated:

A link from Lavender Road to the K97 interchange on the PWV2/N4.  
A direct link from the PWV2/N4 to the Pretoria north core.

A number of provincial road projects of a strategic nature are required in Tshwane.

1. The priority for implementation in Region 1 is the construction of the PWV 9 West of the city. The implementation programme for these roads is not clear. The PWV9 road would complete the “ring road” and improve the accessibility to the regions to the north of Tshwane from Johannesburg. It would also open up the western areas in the city for further development and opportunities.
2. Distributor road projects amount to a total value of R800m and have been identified as priorities in the northern areas and other previously disadvantaged areas in planning regions 1 and 2.
  - North-South mobility can and should be improved in this region. The main north-south mobility road is the PWV9. There are limited Class 2 and 3 routes running in a north south direction.

- Specific proposals include improving the continuity of K63 in the vicinity of the K2.
- The extension of the P61/1 (NW212) from Mabopane to the K14 is supported.
- Both these routes, namely the K212/P21-1 and the K63 must fulfil an important north-south mobility function in future.
- The road network in the Clarina, Karenpark, Eldorette, Winterneest, Hestepark regions should be upgraded to support densification. Amongst the road based measures to support the principle of densification are the construction of the K14 link between Rachel de Beer and Sefako Makgatho Drive and the upgrading of the K14/PWV9 interchange.

#### 4.7.1.3 Bus Rapid Transit (IRPTN System)

The need for a high-quality, customer-orientated public transport (transit) system was identified that will deliver fast, comfortable and low-cost urban mobility within the City. The City's Integrated Transport Plan (ITP) and the Strategic Public Transport Network (SPTN) approved by Council in January 2007 clearly identified certain corridors that should be further investigated and implemented as mass rapid transport corridors.

##### Vision and Objectives

Tshwane's residents depend upon the efficient provision of public transport services to fulfill their daily mobility needs. The integration of the different rail, bus, minibuss, and non-motorised transport options remains a major goal in delivering more convenient and cost-effective services. The proposed Implementation Plan seeks to articulate the vision and steps required to implement a public transport system that integrates all modes into a seamless and high-quality network.

The overall goal of this initiative is to improve the quality of life for the city's residents through the provision of an integrated public transport network that is rapid, safe and secure, convenient, clean, affordable, and socially equitable.



### Phased Implementation

The development of the full integrated network will take place over a series of phases, in order to match the available resources for planning, financial, and construction. In addition to the full implementation of the Priority Rail Network, the following corridors are recommended for development of trunk and or other road services in project Phase 1. See Details in Chapter 2.

#### Phase 1

Phase 1 basically consists of the corridor from Klipkruisfontein Node /Akasia Node to Pretoria CBD, with a further extension to Hatfield, Menlyn and Mamelodi.

## 4.8 RURAL AREAS

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order i.e. to protect the Environmental sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land use development in the less sensitive areas. The Rural map at the end of this section will be applicable to the Rural areas of Region 1.

The Tshwane Rural Component will promote:

- An effective response to rural poverty
- Measures to ensure food security by maximising the use and management of natural and other resources
- Promote the conservation of productive agricultural land.
- Creation of vibrant, equitable and sustainable rural communities
- Contribution towards the redistribution and sustainable use of all potential agricultural land
- Creation of employment and business opportunities for the existing rural population
- Aims to prevent natural disasters like erosion and pollution and other detrimental effects on natural resources
- Formalisation of residential settlements according to the agri-village concept
  - Accessibility to community facilities, work opportunities (related to rural activity) and housing for all
  - Maintenance of acceptable standard for roads and other modals

- The provision of Public transport as a service for the more densely rural areas.
- The Identification of multipurpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations.
- Provision of adequate services to improve living conditions.
- Attention to the matter of ownership and tenants' rights especially in areas where tribal land ownership exists.

### 4.8.1 Major Rural Roads

Each Region shows major roads and routes of Metropolitan context through the Region ensuring movement patterns and the continuation of roads and corridors for the greater Metropolitan area.

The following major roads serve the Rural Component of Region 1:

- N4 (existing)
- K14/R513 (existing)
- M17 (existing)
- R566 (existing)
- PWV 7/K217 (proposed)

### 4.8.2 Urban Edge

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

As indicated in Part 2 "Metropolitan Context" of this document the Urban Edge cannot be seen as the only management tool to demarcate the Rural Component of Region 1.



#### 4.8.3 Development Edge

Complements and corresponds mostly with the Provincial Urban Edge to indicate the extend of the Urban Fabric but deviates in some instances and only in some Regions from the Urban Edge where it follows the line indicating the non-availability of services infrastructure in the Region. The resulting area caused by the deviation between the edges can realistically not be developed in the near future and need to remain rural in character until such time that services can be provided.

#### 4.8.4 Future Urban Development Areas

These areas that results from the non- availability of services will form part of the Urban fabric in the future but needs to be planned for and preserved as Rural areas in a sensible way that will not constrict its incorporation when needed.

The rural-urban fringe located beyond most suburbs, where low-density suburban development meets rural and semi-rural areas. Often contains a mixture of land uses, including large-lot suburban residences, country estates, low-density commercial development, and the remaining agricultural and rural land uses. Specific concerns arise with such developments regarding the creation of “leap-frog” development that stimulates further sprawl of the urban area. By contrast, the small holding and agricultural potential of this zone can be planned to constitute an integral and dynamic part of the city economy (sometimes referred to the “urban breadbasket”)

Within Region 1, the further Northward expansion of residential development is not encouraged and the framework proposes that areas closer to the core should be developed as future residential expansion areas.

In an effort to curb further northward growth of the region future residential development is proposed for the area to the South of the

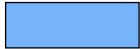
K8 and the railway line (to the West of Rosslyn). This area would be better suited for the provision of residential facilities, than the remote northern parts of the region as it can be served by public transport facilities and is much closer to the core and existing job opportunities. Residential densification is proposed surrounding the railway stations in this area and the area to the south of Rosslyn.

Any development in Winterveld (South of the Urban edge) and other similar remote areas should be focused on poverty alleviation and upliftment. Residential infill and densification in these areas should be discouraged.

Proposed Development Guidelines for these areas can be summarised as follows:

- The contribution of the proposed development towards the goals of the City strategy and Metropolitan Spatial Development Framework.
- The availability of bulk engineering services – especially water and sewerage
- The environmental sensitivity of the area – obvious considerations such as watercourses, ridges, etc
- Proximity of site to public transportation routes/facilities such as stations
- Proximity to other supporting social facilities, economic opportunities, retail
- Physical features that may define the development – such as railway lines/watersheds/ provincial roads/environmental areas
- Liveable communities will have to be developed by means of social services such as schools, police stations and other amenities.
- Aesthetics and urban design guidelines will have to be provided with a diversity of housing typology which breaks from the tradition of monotonous housing schemes which have dominated the South African landscape for too long.
- The provisions of sustainable economic opportunities within these areas.

4.8.5 Management Zones



The Management zones are areas not considered suitable for urban development as they are not well located in terms of the larger urban structure and areas of opportunity and/or are characterised by environmental sensitivities as indicated by the C-Plan and Open Space Framework, which are important to protect from a metropolitan perspective. Rural development such as low density eco and equestrian estates will be supported depending on services that can be provided.

Within these Management Zones, the following Land uses can be supported: Lodges, Wedding Venues, mini storage, place of refreshment; party venues; place of public worship and place of instruction. The availability of services and the ease of access to major roads will play an important role in the evaluation of non- residential uses as mentioned above. Non-residential uses serving the rural population and surrounding urban areas should be concentrated in Community Service Centres as indicated on Region 1 Rural Component Plan. Locations at the intersections of major Roads will be supported.

Two Rural Precincts have been identified in Region 1 – The Magaliesberg Precinct just North of the Magaliesberg mountain and South of Rama City and the Winterveld-Tswaing Precinct in the Northern part of Region 1 .

Any development in Winterveld (North of the Urban edge) and other similar remote areas should be focused on poverty alleviation and upliftment. Residential infill and densification in these areas should be discouraged. Limited economic opportunities will be supported in the management zones.

4.8.6 Agricultural High Potential Areas



Where so indicated certain land in Tshwane Rural has unique agricultural potential in terms of its location, soil quality, being close to irrigation and

other amenities or able to provide high yields and or produce with specific feeding qualities. These quality areas have importance on Regional, Metropolitan and even National level and should be preserved and used in terms of their uniqueness only. Food produce for the country as a whole should be maintained and improved for future generations.

Productive agricultural land will be protected as far as possible in terms of this framework. Fragmentation of agricultural high potential areas will be restricted to a minimum. Agri- industry will be supported in and in close proximity of agricultural high potential areas

4.8.7 Sensitive Protected Areas /Biodiversity Zone



Throughout Tshwane there remain farm portions outside of the Urban Edge that will continue to be used for agricultural purposes. These areas are sometimes already enclosed by other land uses but are not earmarked for change yet. It is necessary to preserve the agricultural and rural character and these areas need to be protected from other uses

Sensitive protected areas. (Combination of C-Plan protected areas), including (Ridges and Streams, Natural resources, Fauna and Flora protected places / areas). These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Protected Area of Region 1 is located mainly along the Magaliesberg Protected Nature Area along the southern boundary of the Region. This area should be managed through environmental codes, to protect the basic resources. Only development in line with the conditions set out in the following tables should be considered.

These areas should be managed through environmental codes, to protect the basic resources. Only development in line with the conditions set out in the following tables should be considered. The Sensitive Protected Areas include important areas, irreplaceable areas, protected areas, ridges and blue ways in line with the C-Plan

Non- agricultural uses will only be promoted if the amenity of the rural area remains intact and the impacts of the development on neighbouring properties are minimal.

#### 4.8.8 Sensitive Ridge Areas



Sensitive Ridge area as indicated on the C Plan should be protected as far as possible in terms of development. Magaliesberg Protected Nature Area is also regarded as sensitive. All development will be restricted in terms of environmental considerations. These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Ridges of Region 1 is located mainly along the Magaliesberg Protected Nature Area along the southern boundary of the Region. This area should be managed through environmental codes, to protect the basic resources. These areas should be managed through environmental codes, to protect the basic resources.

#### 4.8.9 Heritage and Cultural protected Areas

Heritage and

Similar to protection of monumental structures, places and land within the urban context there are equally important structures places and land found in Tshwane's Rural areas that need protection. In most cases the best protection can be provided when it is also developed and operated as Tourism attractions.

#### 4.8.10 Tourism Potential Places/Areas

Tourism

Of natural and economic importance for Tshwane is the accrue ment and expansion of the already known places of tourism, tourism attractions and tourism activities. Places with tourism potential occur throughout Tshwane's rural areas. Conservation and preservation needs to be maintained and tourism potential exploited without damaging overall natural and rural character. Different tourism related uses such as picnic areas, lodges, wedding venues and arts and craft related uses including places of refreshment will be supported in these areas. Commercial uses and uses such as storage and light industrial uses should not be supported in these areas.

#### 4.8.11 Conservancies

Conservanci

Proclaimed conservancies have legal standing and management prescriptions. Conservancies strive towards preservation and the protection of their present state and the notion should be honoured in the Rural context and the evaluation of development proposals.

There are no Conservancies in the rural component of Region 1.

#### 4.8.12 Game and Nature Reserves

Game and  
Nature  
Reserves

In Region 1 the Tswaing crater forms part of a nature reserve.

#### 4.8.13 Mines and Places of Manufacturing

Mines/  
Places of

There are few and dispersed mines and or places of manufacturing in Region 1. All of them need to be managed for their time of existence and

specific rehabilitation programs should be investigated and installed. Protection measures should be implemented for adjacent land and sensitive environments.

#### **4.8.14 Human Settlements**



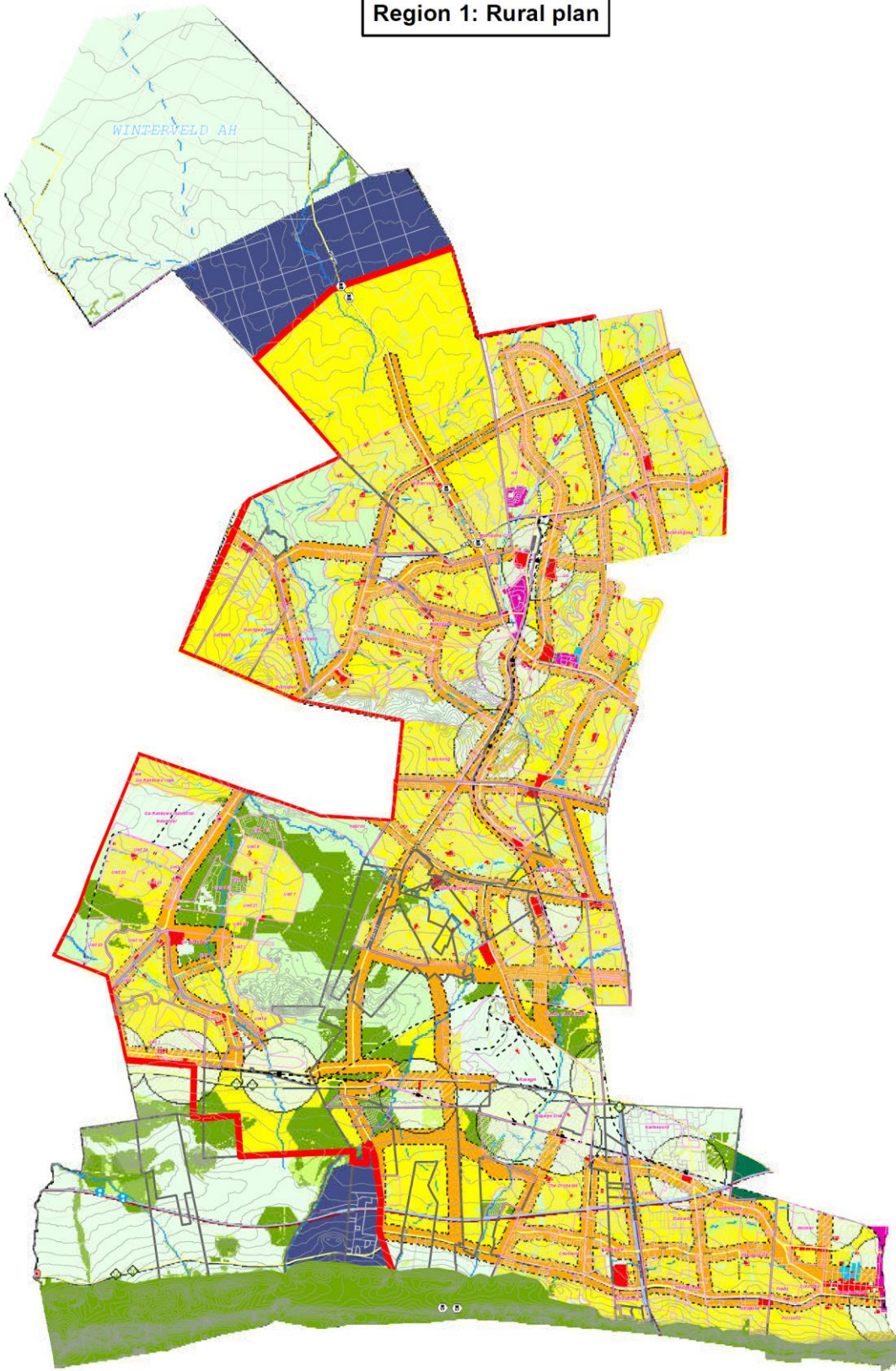
There are a number of places in the Rural Component of Tshwane where villages and other forms of human settlements occur. Some are tribal in nature with official captaincy while others are just a habitual conference of people living together. Some have legal support while others are just illegal squatters. It remains a sensitive issue how to deal with settlements and in each specific case measurements should apply how to best resolve settlement issues. Settlements to remain should be formalized and provided for in terms of human needs and basic services. A settlement that must move needs planning according to an approved program. Specific measures must be taken to manage adjacent land.

















#### **4.8.15 Community Service Centres**



Remote rural areas most of the time do not have the convenience of facilities and amenities within easy reach and sometimes have to rely on the closest urbanized area to fulfil certain basic needs. Because of the extensiveness of most Rural areas it is therefore most logical to concentrate whatever facilities, services and amenities that can and should be provided together close to the bulk of the population at a location that is the most accessible to all. As transport provides accessibility, road junctions or cross roads tend to provide most accessible locations for surrounding populations in vast rural areas. It is the challenge of each region to identify such suitable and accessible location/s to establish Community Service Centre/s for its rural component. There are no Community Service Centres located in the Rural Component of Region 1.





Legend					
	Edited version Urban Edge 2017		Game / Nature Reserves		Sensitivity Protective Areas
	Main Rural Roads		High Potential Agriculture		Cradle Buffer Zone
	Low Density Zone		Offices		Development Edge
	Mixed Use		Core		Management Zone
	Mines		200m 30/60 ha Liniar Line		Future Urban Development Areas
	Future Regional Cementry		Suburban density		Community Service Centre
	Tourism Potential Places		Human Settlement		Biodiversity Zone
			Rural		
			Rural Service Centre		

## 4.9 OPEN SPACE AND ENVIRONMENTAL AREAS

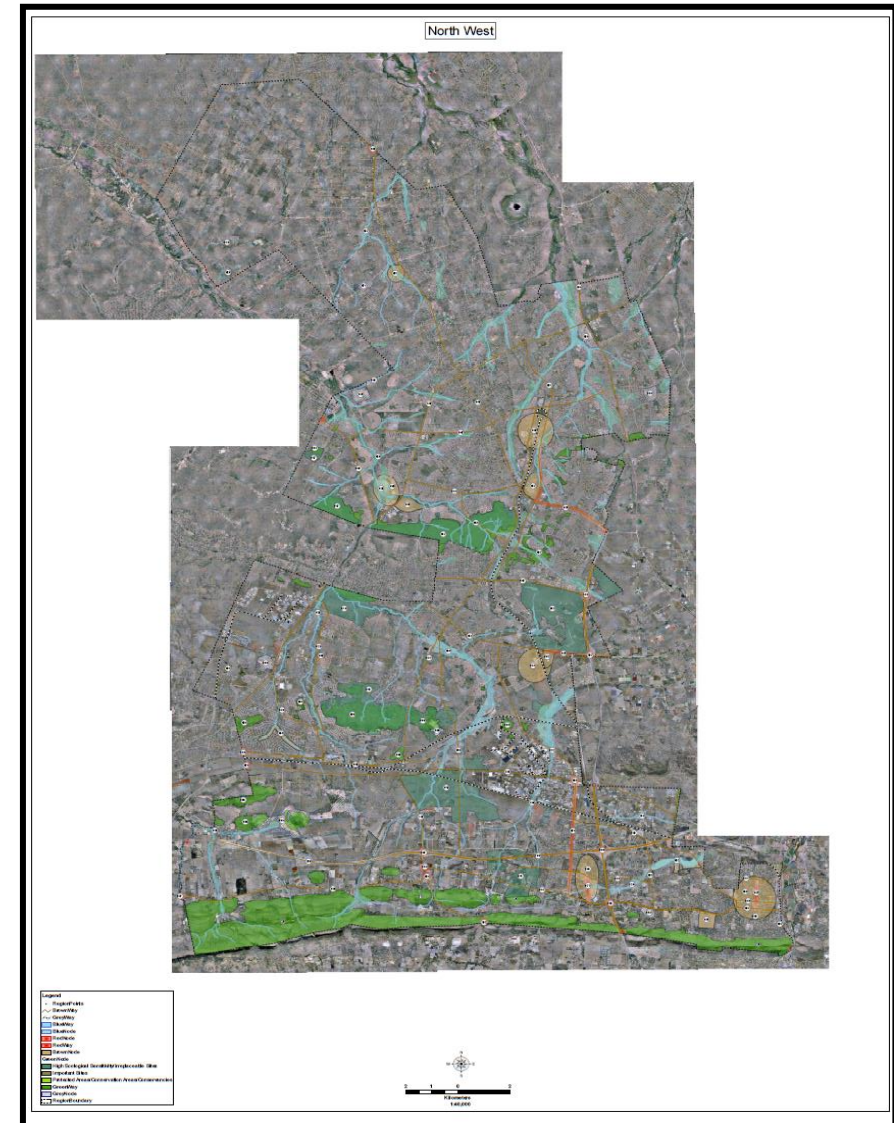
The RSDF plan does not indicate the whole Metropolitan open space network, because of its concern with open spaces on a regional scale only. The plan shows as 'Open Space' all rivers and water courses, all mountain ranges and ridges as indicated in the Tshwane OSF, all nature areas and conservation areas, as well as the major brown nodes. The plan also shows as 'Environmental Areas' all irreplaceable and important sites, as identified and defined by GDARD, as well as all conservancies. Brown, grey and red nodes and ways are not shown. For complete and detailed information regarding the Metropolitan open space network, it is essential and of utmost importance that the Tshwane OSF plan is always consulted together with the RSDF plan.

The major open space network form giving elements have been indicated on the Regional Spatial Development Framework. Potential Placemaking opportunities exist around the Mabopane Highway and at the proposed Urban and Metropolitan Cores for Akasia, Klip-Kruisfontein and Mabopane Station.

Areas to the west of the Mabopane Highway and areas to the south of the N4 which are currently seen as conservation areas should be investigated further. These areas have been cut off from the Onderstepoort conservation area when the highways were constructed. The opinion from a town planning point of view is that these areas should be investigated to consider other land uses.

Before any development or change of land-use can take place, all important sites and irreplaceable sites are subject to a possible E.I.A. survey, after discussions with GDACE and the Municipality's Environmental Planning Section.

The Biodiversity map and tables must be used as a guideline for land uses management in these areas.



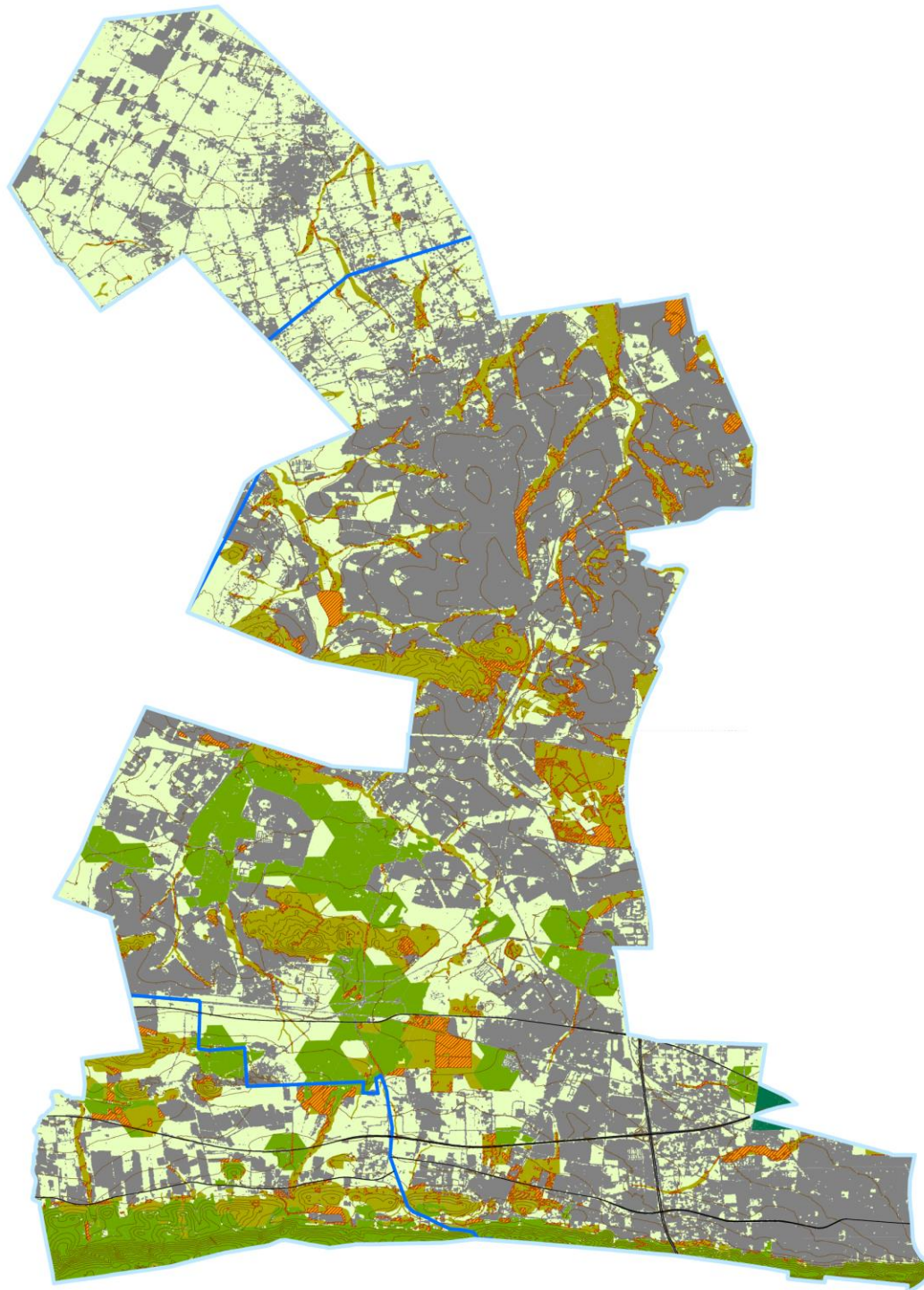


## LAND USE PLANNING GUIDELINES -

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Protected Areas</b>	Formal Protected Areas and Protected Areas pending declaration under NEMPA.	Maintain natural land. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Maintain or obtain formal conservation protection.	Conservation and associated activities.	All other land-uses.
<b>Critical Biodiversity Areas (1)</b>	Areas required to be maintained in a natural or near natural state to meet targets for biodiversity pattern (features) or ecological processes.	Maintain natural land and ecological processes. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Obtain formal conservation protection where possible. Implement appropriate zoning to avoid net loss of intact habitat or intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations with strict control on environmental impacts and carrying capacities, where the overall there is a net biodiversity gain. Extensive Livestock Production with strict control on environmental impacts and carrying capacities. Urban Open Space Systems	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production (all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures). Arable Agriculture (forestry, dry land & irrigated cropping). Small holdings
<b>Critical Biodiversity Area (2)</b>	Cultivated landscapes which retain importance for supporting threatened species	Maintain current agricultural activities. Ensure that land use is not intensified and that activities are managed to minimize impact on threatened species.	Avoid conversion of agricultural land to more intensive land uses which may have a negative impact on threatened species or ecological processes.	Current agricultural practices including arable agriculture, intensive and extensive animal production, as well as game and ecotourism operations, so long as these are managed in a way to ensure populations of threatened species are maintained and the ecological processes which support them are not impacted.	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). More intensive agricultural processes than currently undertaken on site.

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Ecological Support Areas (1)</b>	Natural, near natural and degraded areas required to be maintained in a ecologically functional state to support Critical Biodiversity Areas.	Maintain ecological processes.	Implement appropriate zoning and land management guidelines to avoid impacting ecological processes. Avoid intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations. Extensive Livestock Production. Urban Open Space Systems. Low density rural residential, smallholdings or resorts where development design and overall development densities allow maintenance of ecological functioning.	Urban land-uses including Residential (including golf estates), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production ( all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures) Arable Agriculture (forestry, dry land & irrigated cropping). Note: Certain elements of these activities could be allowed subject to detailed impact assessment to ensure that developments were designed to maintain overall ecological functioning of ESAs.
<b>Ecological Support Areas (2)</b>	Areas with no natural habitat which retain potential importance for supporting ecological processes.	Avoid additional impacts on ecological processes.	Avoid intensification of land use, which may result in additional impact on ecological processes.	Existing activities ( e.g. arable agriculture) should be maintained, but where possible a transition to less intensive land uses should be favoured.	Any land use or activity which results in additional impacts on ecological functioning, mostly associated with the intensification of land use in these areas (e.g. Change of floodplain from arable agriculture to an urban land use or from recreational fields and parks to urban).
<b>Other Natural Areas</b>	Natural and intact but not required to meet targets, or identified as Critical Biodiversity Areas or Ecological Support Areas.	No management objectives, land management recommendations or land-use guidelines are provided as these areas are outside the ambit of the Bioregional Plan. These areas are nevertheless subject to all applicable town and regional planning guidelines and policy. Where possible existing transformed areas should be favoured for development before "Other natural areas" as before "Other natural areas" may later be required either due to the identification of previously unknown important biodiversity features on these sites, or alternatively where the loss of "Critical Biodiversity Areas" has resulted in the need to identify alternative sites.			
<b>No natural habitat remaining</b>	Transformed or degraded areas which are not required as Ecological Support Areas, including intensive agriculture, urban development, industry; and infrastructure.				





**Legend**

- Region 1
- Municipal Boundary
- Highways
- Urban Edge 2013
- Contours 2013 20m

- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Area 1
- Ecological Support Area 2

- No Natural Remaining
- Other Natural Area
- Protected Area (Formal)
- High Potential Agricultural



Date: 2016/12/12  
Scale: 1:30 391

#### 4.10 WETLAND MANAGEMENT PLAN FOR TSHWANE

This plan has been developed to improve wetland management in the City of Tshwane. Wetlands are critical to the wellbeing of the local economy, communities and individual people and provide a range of services for the City of Tshwane.

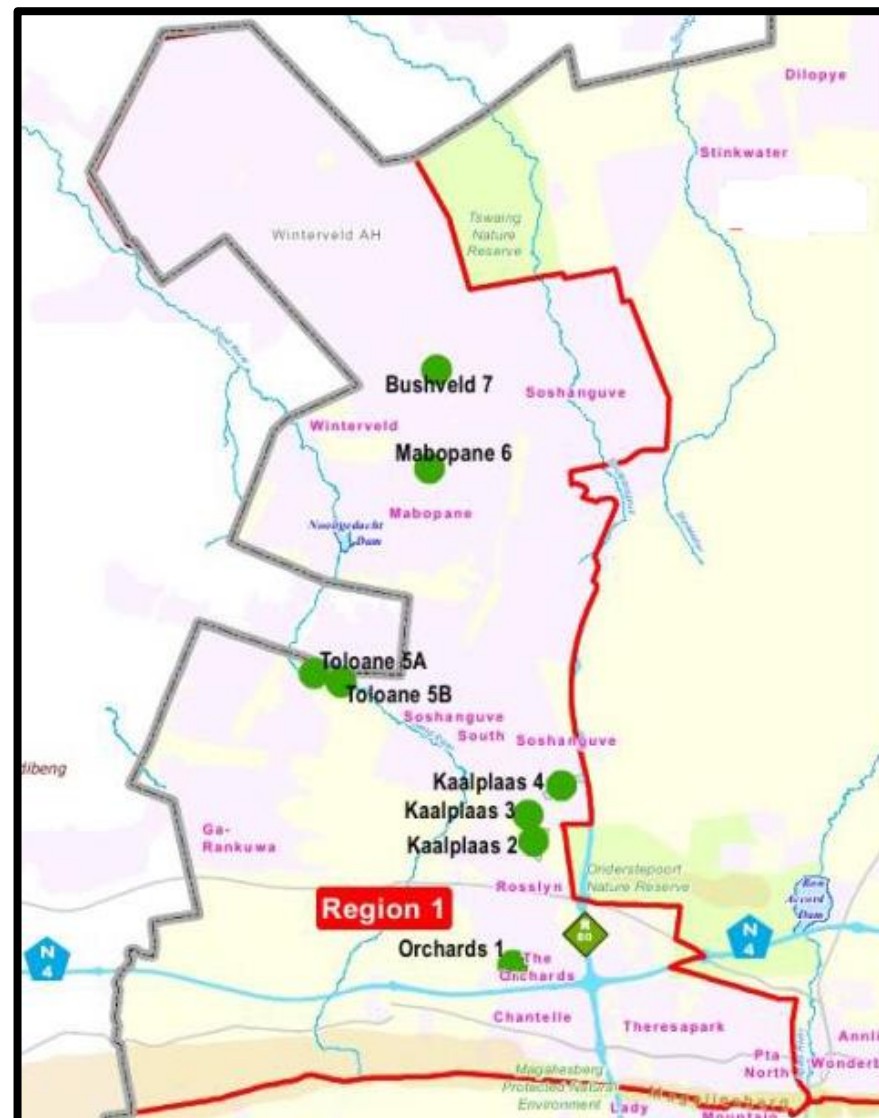
Wetlands can be regarded as „ecological infrastructure“. They are as important as other types of infrastructure for providing a range of services for residence. As with other forms of infrastructure such as roads, wetlands also require management and maintenance in order to keep them in good condition and functioning well.

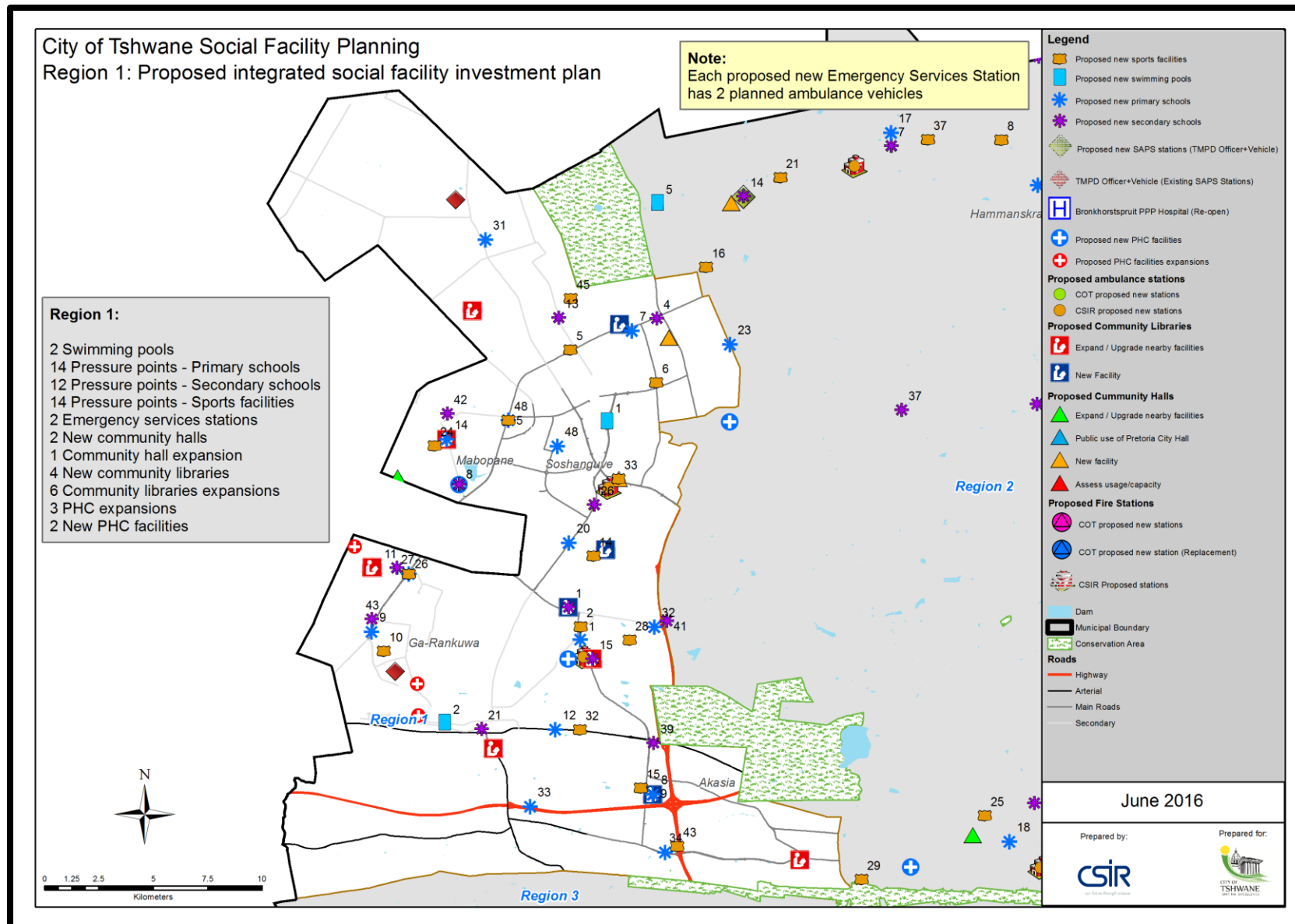
Ecosystem services provided by wetlands include: water storage, flood protection, water purification, food, materials, habitat for species, carbon storage, local climate and air quality regulation.

It is important to take note that wetlands benefits all the residence of the City of Tshwane. Although the Municipality is the custodian of wetlands only on municipal properties, all the wetlands supply ecosystem services to all residents.

The goals of the plan are as follows in Region 1.

1. Wetlands are conserved and protected.
2. In areas where the continuing loss or degradation of wetlands, or their functions, have occurred and/or reached critical levels, wetlands are rehabilitated or enhanced.
3. All departments are aware of the importance of wetlands and wetland functions are recognised in resource planning, management and economic decision-making with regard to all programmes, policies and activities within the City of Tshwane.
4. Local communities collaborate in wetland management.

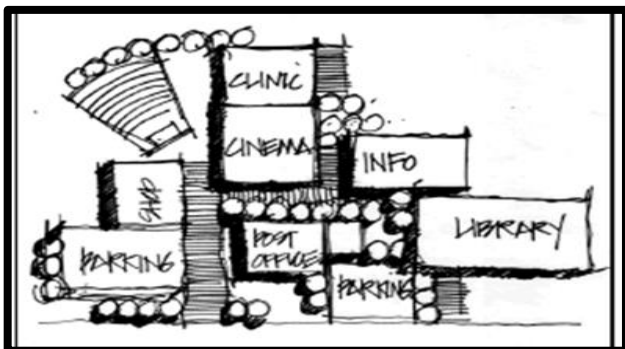






From a spatial or location perspective, the clustering of parks and social facilities in and around corridors and other points of highest accessibility (such as major transport facilities) is of vital importance.

Different social facilities such as schools, clinics, pay points, library's, active open space and other should be clustered at one central point in the residential neighbourhood and should be accessible in terms of public transport.



Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase. Open green space should not be privatised. Existing open spaces and parks must be protected and not used for development purposes. Encourage community and stakeholder collaboration; and retain, enhance and encourage cultural assets.

Where neighbourhoods lack sufficient open space, new parks and recreation areas must be introduced, especially in areas earmarked for higher density development. Activity Support is the presence of activity planned for the space. Development designs should locate plazas, for

example, in places where they are most likely to be used for gatherings (both organized events and informal meetings).

#### Primary school Needed in Region 1

Attracted population	Facility equivalent	Suburb / Sub-place
24 359	An equivalent to 24 schools of 1000 pupils	Soshanguve SS
7 151	An equivalent to 7 schools of 1000 pupils	Winterveld
5 516	An equivalent to 5 schools of 1000 pupils	Soshanguve GG
5 239	An equivalent to 5 schools of 1000 pupils	Akasia
4 593	An equivalent to 4 schools of 1000 pupils	Ga-Rankuwa Unit 23
2 854	An equivalent to 3 schools of 1000 pupils	Wonderboom
2 052	An equivalent to 2 schools of 1000 pupils	Odinburg Gardens
1 559	An equivalent to 1 school of 1000 pupils	Soshanguve TT
1 075	An equivalent to 1 school of 1000 pupils	Ga-Rankuwa View

#### Secondary School Needed in Region 1

Attracted population	Facility equivalent	Suburb / Sub-place
13 709	Equivalent of 13 secondary schools of 1000 pupils	Soshanguve SS
4 563	Equivalent of 5 secondary schools of 1000 pupils	Soshanguve – PP East
2 999	Equivalent of 3 secondary schools of 1000 pupils	Mabopane Unit V
2 887	Equivalent of 3 secondary schools of 1000 pupils	Akasia
2 282	Equivalent of 2 secondary schools of 1000 pupils	Ga-Rankuwa View
2 000	Equivalent of 2 secondary schools of 1000 pupils	Soshanguve JJ
1 790	Equivalent of 2 secondary schools of 1000 pupils	Soshanguve East
1 029	Equivalent of 1 secondary schools of 1000 pupils	Ga-Rankuwa Unit 2

## PART FIVE: DETAIL PRECINCT PLANS

### 5.1 EXISTING PRECINCT PLANS

Previously a number of precinct plans and policies have been developed for areas within the region which are in line with the CDS and MSDF. The following list of policies and plans with their main proposals are included as part of this framework.

#### 5.1.1 Pretoria North Spatial Development Framework, 2006 (Revised 2017)

The City of Tshwane prepared a Spatial Development Framework (SDF) the Pretoria North Central Business Area (CBD). The aim of the study was to focus on trends and future development within the CBD area.

While the Spatial Development Framework provides a guideline for future expansion of land uses within the Municipality, it shall not restrict development which, by reason of need or its desirability (in the public interest) can be proven to contribute towards the co-ordinated, sustainable and harmonious development of the area.

The Pretoria North/Rainbow Junction areas have been identified as a Metropolitan Core in Terms of the Metropolitan Development Framework. A Metropolitan Core is characterised in terms of their mixed land use character that developed over time. These areas develop as a network of activities, and are very important on a Metropolitan level.

Due to various market related aspects, and proposed developments such as the proposed Rainbow Junction Development, the Pretoria North area has suddenly become under pressure for development at greater intensities than is currently permitted in terms of policy.

Other planning initiatives of strategic importance were launched with possible impacts on the study area. These include the proposed upgrading of the Pretoria North station as part of the inter modal facility

for the proposed Rainbow Junction, as well as the proposed K14 road linking Zambezi drive with Rachel de Beer street.

Urban Development is dynamic and therefore constantly changing in a response to the mobility of the population and market forces. The need was identified to prepare a Spatial Framework taking into account the current residential quality, the existing business component and the strategic importance of other planning initiatives.

The following control measures can be seen as the key measures:

Strict planning controls on rezoning / business applications applies and is enforced according to the guidelines in this plan;  
No further business or office style development allowed south of Rachel de Beer outside of the Burger Street precinct. Strict enforcement of current Town Planning Scheme on defaulters in this area;  
Proposed Rainbow Junction Development is accepted with deliberate intervention guiding the basket of land-uses complimenting and supporting the existing land-uses in Pretoria North CBD.  
Interconnect the two areas via Gerrit Maritz Street. This means that a bridge or subway has to be constructed across or underneath the Metro railway tracks parallel to the construction of the Rainbow Junction;  
Residential densities policy relaxed and allows for and higher units per hectare density by default on merit basis.

Pretoria North forms part of the Pretoria North / Rainbow junction metropolitan node. The Pretoria North node include a portion of Wolmer to the north of Wonderboom street due to the area's proximity to Wolmerton train station. The node is bordered by Gwendolen street to the North, Brits road on the south, Paul Kruger on the east and Daan de Wet Nel, Broodryk and Kendal (Wolmer) on the west.

Pretoria North CBD is one of the two Metropolitan Node within Region 1. For the last few years the traditional importance of Pretoria North CBD has

been eroded by the development of centres such as Wonderpark and Wonderboom shopping centres.

The Bakwena/N4/PWV2 highway notably increased east–west access to the Pretoria North CBD. The area is supported by different mode of transport: buses, trains and taxis. There are two passenger stations situated in Pretoria North Node (Wonderboom, Pretoria North and Wolmerton Stations)

There is a series need for proper intermodal transport facility in the Pretoria North CBD. Currently the ideal location for such facility is Wonderboom station

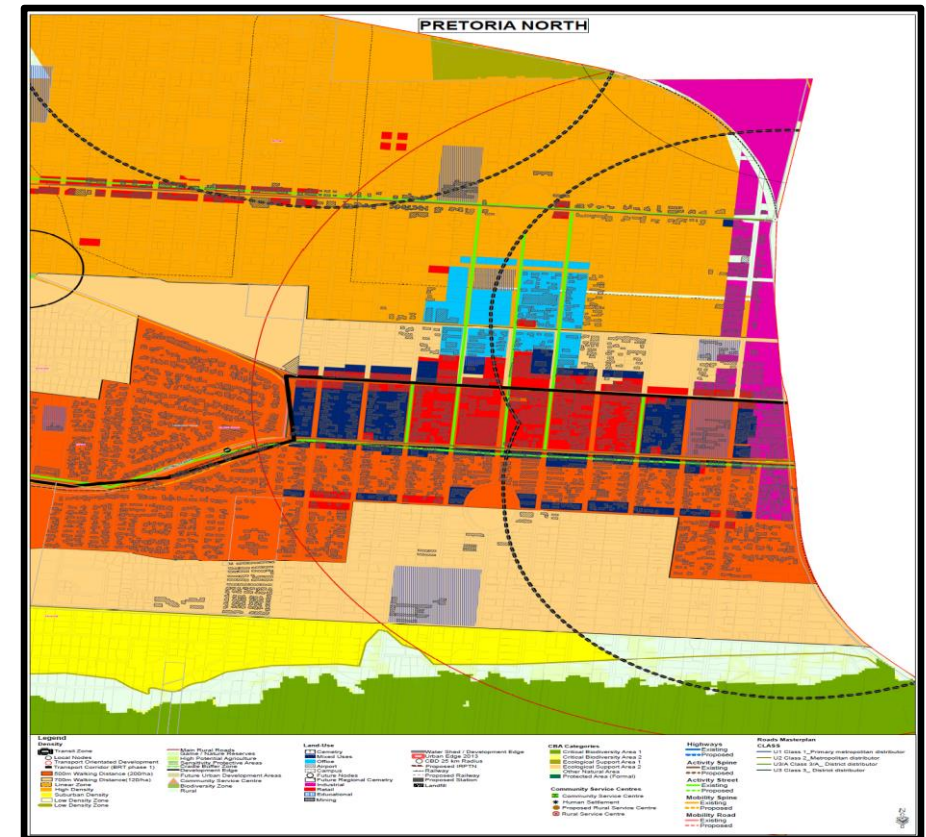
There are three roads that serve a major mobility and activity function in the Pretoria North metropolitan node: -

- Rachel De Beer – provides an east-western mobility on a metropolitan level
- Gerrit Maritz – run parallel to Rachel de beer street and also fulfils the function of an activity street
- President Steyn Street – the western part of the street, to the north of the study area, is currently serving the function of an activity street, with direct access to business related land uses.

The Pretoria North CBD comprises of motor trade and related uses; businesses; retail, offices, commercial, industries; schools and educational facilities and residential properties. Most prevalent in the CBD are businesses, retail and commercial uses.

The approved Pretoria North CBD Spatial Development Framework outlined three possible future scenario's. The most preferred been scenario 3 (connecting Pretoria North and Rainbow Junction). The Pretoria North SDF it still applicable however certain section will be revoked.

- i) Area North of Brits Road, South of Rachel de Beer, east of rail way line and west of west street



### Density

- As per RSDF chapter 4.

### Land uses

Allow non-residential uses such as Hair Salon, Beauty SPA, Medical Consulting room (excluding estate urgent offices), Home office, block of tenements, high density residential development (schedule 2 of Tshwane scheme shall apply)

- ii) Area south of Brits (properties abutting on Brits road) road

#### **Density**

- As per RSDF chapter 4.

#### **Land uses**

Allow non-residential (uses such as Hair Salon, Beauty SPA, Medical Consulting room (excluding estate urgent offices), Home office, block of tenements (schedule 2 of Tshwane scheme shall apply)

- iii) Areas south of Rachel de beer and along Brits road including the areas west of Paul Kruger, south of Gerrit Maritz and east of Jan van Riebeck street up o Paul Kruger street.

#### **Density**

- As per RSDF chapter 4.

#### **Land uses**

Allow high density residential developments

- iv) Areas to the east of Kendall street between Gwendolen and Wonderboom street up to Broodryk street. The area between Broodryk street bordered by Gwendolen and stasie street (and residential erven to the south of stasie street) up to the erven abutting Jan van Riebeck to the west

#### **Density**

- As per RSDF chapter 4.

#### **Land uses**

Allow high density residential development

- v) Area's to the north of Gerrit Maritz up to Jan van Riebeck and erven bordering Koos de la Rey to the west up to Wonderboom street and to the west of Paul Kruger

#### **Density**

- As per RSDF chapter 4.

- vi) Area east of Koos de la Ray (including properties abutting Koos de la Ray to the West) and to the north of Gerrit Maritz

#### **Land uses**

Allow industrial related uses and residential must be discouraged

- vii) Areas to the North of Rachel de Beer and to the South of Stasie street

#### **Density**

- As per RSDF chapter 4.

#### **Land uses**

Allow mixed uses development

The Rainbow Junction development will consist of business/office parks, education/training facilities, and an automotive node. Further the central precinct will consist of large destination and regional retail-centric node, integrated with hotels, conference facilities, offices, world-class cultural opportunities and residential apartments flowing into vibrant public spaces. The northern precinct will consist of urban village lifestyle and high-street energy, green building campus opportunities, business park, convenience retail and residential with complementary facilities.

The BRT will run through the south western part of the Rainbow Junction precinct and then run in a western direction through Pretoria North as indicated on the framework.





The northern precinct will consist of urban village lifestyle and high-street energy, green building campus opportunities, business park, convenience retail and residential with complementary facilities. The densification is aimed at creating a sense of connectivity and balance in relation to the variety of uses within the area. Industrial trend also prevalent and supported on the properties bordering the station and BRT station.



### 5.1.2 Akasia Metropolitan Urban Core (revised 2017)

The development strategy aims to facilitate development and it therefore has spatial implications. A preliminary development framework has been prepared, based on the alternative land uses, initial development proposals and facilitation of such development.

The Akasia Metropolitan Node is an existing mixed land use node that can be considered to be in an early stage of development. The area is characterised by strong retail, high density residential and public facility components. The node is concentrated around the existing Wonderpark Regional shopping centre in close proximity to the R-80 (Mabopane highway) on- and off-ramps to Brits Road (direction south and north). It is approximately 2km from the R-80/N4 interchange and therefore has a high degree of intra- and inter-regional accessibility in terms of road transport.

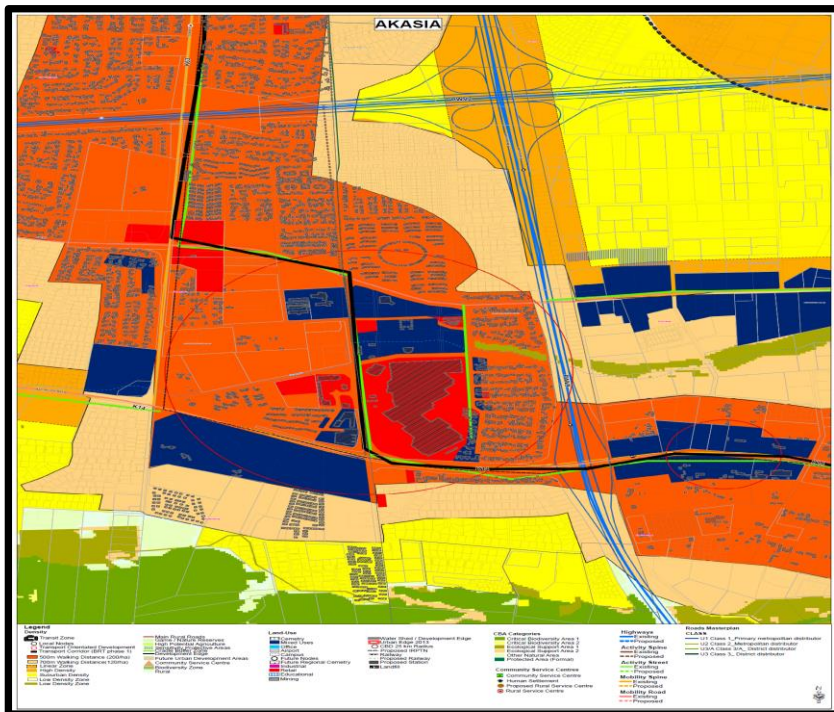
The nodal demarcation is defined by the traffic box consisting of the R-80 on the eastern boundary, Brits Road on the southern boundary, Doreen Road on the western boundary and the N4 on the northern boundary. Although outside these boundaries, certain parts of the Amandasig and Chantelle areas, as shown on the plan, have also been included as these are large, mostly vacant land parcels with potential to form an integrated whole with the urban core. The total area of the node is approximately 315ha.

The proposed BRT (Bus Rapid Transit) system bisects the node, making it a future public transport hub with excellent accessibility for all road traffic modes. Two BRT stations are proposed within the node on Heinrich Avenue to the west of the Wonderpark Mall and on First Avenue between Heinrich Avenue and Doreen Road. High residential densities of 200+ dwelling units per hectare are proposed around the BRT stations within a radius of 500m. The area to the north of Wonderpark is earmarked for mixed uses, including the existing offices, places of refreshment and community facilities as well as proposed retail, business, offices and open space.

The area bordered by Heinrich Avenue, Doreg street, Dale road and Doreen Avenue is also proposed for mixed uses with a combination of high density residential as well as retail, offices and commercial uses.



Two additional mixed use areas have been identified to the south of Brits Road and at the Brits Road/Doreen Road intersection. Land uses in these areas shall be restricted to retail, business, offices and residential. High density residential development (200+ dwelling units per hectare) in apartment buildings of between five (5) and seven (7) storeys is proposed in the core areas. The detailed proposals should preferably include provision of open space to create a linkage with the existing open space system as illustrated on the development framework. High density residential redevelopment to the east of Dieffenbachia Street will be considered where such densification will not negatively affect the existing residential character of the area.



Extension of the retail component to include other forms of retail such as value retail and service industries should be allowed in close proximity to the existing Wonderpark Shopping Centre. Increased accessibility of the

study area may in future be beneficial in the context of the Automotive cluster developed to the north of the study area and motor related activities may therefore possibly also be accommodated in the area.

Further development and densification of this node is strongly supported on both a horizontal and a vertical scale. The node should include the full spectrum of land uses, including high density residential uses to support the public transport system of the area

AKASIA METROPOLITAN CORE	
Intervention	Guidelines
1. Densification east of Dieffenbachia Street without affecting the existing residential character	<ul style="list-style-type: none"> <li>Retain the residential character of the area east of Dieffenbachia street, west of Mabopane Highway/R80, south of first avenue and north of Rachel de Beer street and allow: <ul style="list-style-type: none"> <li>Second dwellings (only on properties more than 700m<sup>2</sup>)</li> <li>Subdivisions (if possible),</li> <li>Density rezoning</li> </ul> </li> </ul>
2. Support low-intensity non-residential land uses along with a focus on community services and economic opportunities along part of Dieffenbachia Street for properties abutting Dieffenbachia Street.	<p>Uses to be supported along part of Dieffenbachia street on the following Erven:  <b>Erf 171, 199, 200 to 202; 223, 224, 263 to 265, 266, 278, 279, 294, 295, 309, 310 and 323</b></p> <p><b>Uses that will be considered subject to submission of a land use application:</b></p> <ul style="list-style-type: none"> <li>Hair Salons</li> <li>Veterinary clinic</li> <li>Crèche</li> <li>Guest houses</li> <li>Home offices/Offices (existing building)</li> <li>Medical consulting rooms</li> <li>High-density residential units (apply Compaction and Densification Strategy)</li> </ul> <p><b>Uses not permitted:</b></p> <ul style="list-style-type: none"> <li>Retail,</li> <li>Industrials uses,</li> <li>Commercial related uses (including car</li> </ul>

	dealerships)
3. Support retail, offices and commercial uses	<ul style="list-style-type: none"> <li>Allow the expansion of the existing retail, offices and commercial into area bordered by Heinrich Avenue, Doreg street, Dale road and Doreen Avenue.</li> </ul>
4. Protect existing community facilities	<ul style="list-style-type: none"> <li>Maintain and discourage alienation of existing community facilities.</li> </ul>
5. Provide public transport intermodal facility	<ul style="list-style-type: none"> <li>Allow provision of taxi/business holding bays within the existing and proposed retail centres</li> <li>Encourage Transport Development Division to identify site for public transport intermodal facility within this sub area.</li> </ul>

### 5.1.3 Mabopane Station Area Urban Development Framework

The Mabopane Station is located on one of the most important metropolitan corridors and public transport axis's. The Mabopane Station serves the communities of Mabopane, Soshanguve and Winterveld. The rail station is the third busiest interchange in South Africa, with a large railway facility and multiple taxi and bus ranks, but has for many years operated in substandard conditions.

Between 120 000 and 150 000 commuters use the station daily, whether they travel by train, bus or taxi. The node serves as an interlink for different modes of transport at the station from rail, bus and taxis. High number of commuter's exchange modes of transport at this node which makes the area more active and viable. The Mabopane Station was built as a modal integration station with buses and taxis being feeders to the rail industry.

The station is linked to the Pretoria CBD, Mamelodi and Johannesburg. The Mabopane Station is about 40 km from the Pretoria CBD and adjacent to the proposed Mabopane Centurion Development Corridor, which is an economic development corridor, intended to consolidate existing economic developments.

The Mabopane Station area has been identified and approved as one of the Urban Core areas of the MSDF within the Tshwane Metropolitan region. In addition, the area has been accepted as a strategic development project to uplift and serve the needs of the surrounding

communities, and as such, will have to be re-developed into a multi-functional urban core.



#### 5.1.3.1 Proposed Land Uses

##### *Soshanguve side (East of station)*

Formal hawker facility  
Business park  
Light industry  
Retail park  
Housing

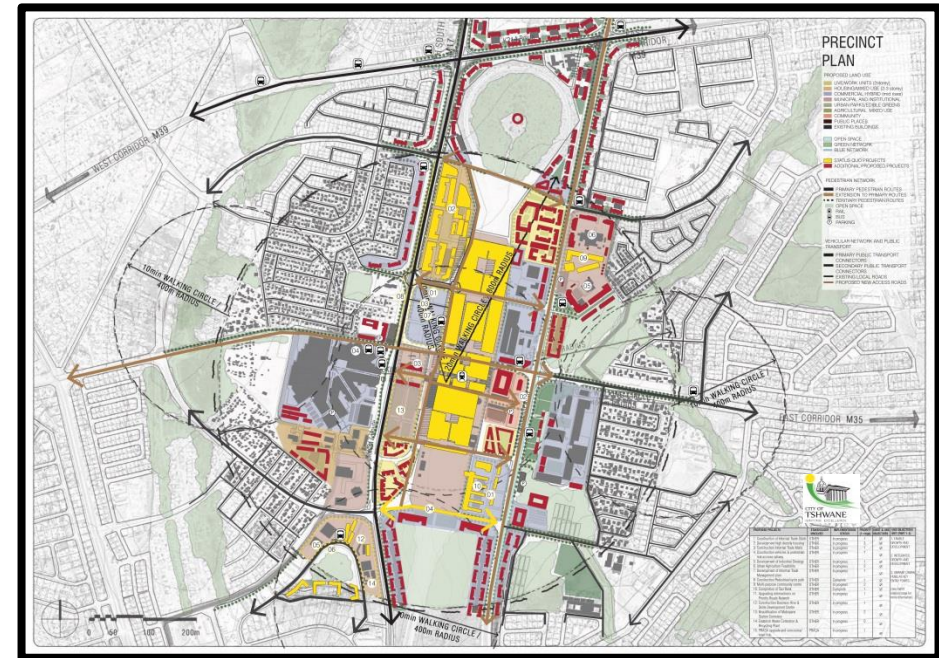
##### *Mabopane side (West of station)*

Formal hawker facilities  
New taxi facilities  
Landscaped graveyard  
Business park  
Light industry

### 5.1.3.2 Objectives of the Framework

The objectives of the urban design framework can be summarised as follows:

- Establish a fully functional and operationally sound intermodal public transport facility that is safe, convenient and comfortable and provides for short and long-distance taxi, bus and rail facilities;
- Create a network of public squares and pedestrian pathways that interconnects the different public transport facilities and directs pedestrian movement to support a full range of economic activities, consisting of quality hard landscaped areas that accommodate pedestrian movement and the gathering of people for cultural and entertainment activities, and shopping utilities for the people engaged in the activities;
- Establish the precinct as the core transport / economic node, integrating the Mabopane and Soshanguve residential areas, providing a broad range of investment and development opportunities, located so as to take advantage of the movement of people through the site;
- Establish new internal roads network to support the economic node and enhance the modal public transport interchange, consisting of an east-west connection of roads across the rail reserve barrier, and an internal network that unlocks the potential development sites as well as provide new routes for road-based public transport;
- Establish a mix of land uses that supports and enhances the role of the node, consisting of formal and informal retail facilities, offices, service and entertainment areas and a range of residential facilities.
- Provide the residents of Mabopane and Soshanguve with a place to work, shop, live and play, which is safe and conveniently connected to the broader region by efficient, safe, comfortable and affordable public transport.



Main characterises of the node

- Hubs of economic activities
- Well integrated transport movement patterns.
- Mixed land use
- Integrated with activity spine and corridors.





**The node promotes the following: -**

- Intense and diverse range of goods and services.
- Private and public sector investment.
- Establish the image of the area.
- Sources of revenue by providing employment opportunities,
- Social development and economic diversity.
- Pedestrian and public transport movement

**5.1.4 Development Framework for the Eldorette, Heartherdale Winterest Agricultural Framework (Revised 2017)**

The development framework provides for four development objectives namely:

To define and demarcate a functional regional open space system for the area which will enhance the environmental quality and preserve important local and regional environmental features such as the Boepenspruit and the Magaliesberg.

To establish a road network for the area serving both local and regional movement needs. This network must ensure an even distribution of traffic, provide for accessibility and access to all parts of the study area, and accommodate pedestrians, cyclists and future public transport needs.

To cater for regional and local economic activity as well as community facility needs in a structured manner which will minimise the impact on the surrounding predominant residential areas.

To provide for extensive “full life cycle” range of residential development in the study area which caters for a wide variety for housing typologies, densities and price range. The density applicable in these areas is as per the RSDF Density map.

Mini storages are to be allowed in the area North of first Avenue, South of N4, east of R80/Mabopane Highway and West of Willem Cruywagen. The following principles will apply when evaluating such developments:

- Aesthetic impact will be taken into consideration
- The scale of the development will be restricted in accordance with the surrounding development
- Development Control shall be restricted to maximum coverage: 50%, height: 1 storey, FSR: 0.5
- The length of each storage block shall not exceed 30 metres
- All roofs shall be roof-tiled
- Maintenance free brick shall be used
- All boundaries shall be landscaped with matured trees of not less than 2 metres.
- 5 metre non relaxable building line shall apply in all the boundaries
- Storage development shall not be located within a radius of 1.5 km from each other.
- The Municipality can impose any other condition deal necessary when evaluating the application.

### 5.1.5 Development Framework for the Ga-Rankuwa CBD \_ and Ga-Rankuwa Gateway

The Ga-Rankuwa area is located about 25 kilometres away from the Pretoria CBD and about 5 kilometres to the east of Ga- Rankuwa is the Rosslyn industrial area.

In metropolitan context the Ga-Rankuwa area is fairly isolated from the bulk of regional facilities and services which the City of Tshwane offers. The following features can be noted in Ga-Rankuwa:

- Two activity nodes (Ga-Rankuwa CBD and Ga-Rankuwa Gateway) and one specialist node (Ga-Rankuwa Industrial).
- At present the Ga-Rankuwa CBD is a major activity node within the Ga-Rankuwa area, although a large portion of land to the east of the centre is vacant this can be seen as the future expansion of the existing centre.
- At the time of preparing this document CoT was still evaluating development proposal for the development of the Ga-Rankuwa CBD node.
- The Ga-Rankuwa Gateway is characterised by mixed use development (social facilities), George Mukhari Hospital, Tshwane University of Technology, University of Limpopo (Mendusa Campus), Neo Delta Neighbourhood centre and supporting services (Wisani Private Clinic, community hall, Hotel school etc).
- The industrial area is fairly large in extent and is about 10 kilometres away from the Rosslyn industrial area which is located to the east of Ga-Rankuwa.



The node is located approximately 37km north west of the Pretoria Central Business District. It is located in the north western part of Pretoria North



en-route to Brits which is the main access route to the township from Pretoria Central, Pretoria North and Rosslyn. It is also accessible through Mabopane and Soshanguve. The node constitutes a broad and diverse spectrum of people.

Ga-Rankuwa CBD node presents opportunities for growth and development. At the time of preparation of this document the CoT was in the process to appoint service provider/consortium to develop the vacant site next to the exiting Ga-Rankuwa shopping centre. This node is seen as business and social node.

- Ga-Rankuwa Gateway node is a social node focusing on community facilities such as educational, health facilities and limited retail.
- The proposal contained in the Ga-Rankuwa Gateway Feasibility study is advocating for the development of this node for uses that will complement existing facility and strengthen the Ga-rankuwa CBD node.



#### 5.1.6 Rama City

Rama City is a true mixed-use and sustainable human settlement development under way near Ga Rankuwa, north of Pretoria. The development is an integrated development with shops, offices, schools, clinics and entertainment venues that will enable the community to live, work and play in the same locality. As part of the urban planning process for Rama City, land allocations have been made for around 230ha to be used for a wide variety of residential uses, 51ha for mixed use, 41ha for commercial use, 57ha for retail use and 34ha for light industrial development. The remainder of the property will accommodate community facilities such as schools, sports facilities, clinics, police stations, places of worship and parks. Three Township applications have been submitted with a total development of about 11 000 units.



### 5.1.7 Development Framework for the Kopanong Emerging Node

The Kopanong Emerging Node is a proposed mixed land use node that can be considered to be in a very early or pre-development phase. The area has therefore not yet attained a distinctive, specific land-use character. The node is concentrated around the existing Kopanong station on the Pretoria-North Mabopane commuter rail route in the Soshanguve South (Klip-Kruisfontein) area to the north of Rosslyn.

It should have a strong focus on the creation of effective community facilities, although the provision of retail facilities and mixed uses are encouraged. Higher density residential development is also encouraged around this Node. Recreational facilities also form part of future planning in this area around the quarry in the east. Due to the Node's distance from the Capital core or significant specialised activity areas only two to three storey developments (walk-ups) are envisaged for this area.

The nodal demarcation is defined by the boundaries of the township Soshanguve South Extension 14 on the western side of the railway and the regional recreation resort on the eastern side.

Further development and densification of this node is strongly supported on both a horizontal and a vertical scale. The node should include the full spectrum of land uses, including high density residential uses to support the public transport system of the area.





### 5.1.8 Development Framework and Master Plan for the Tshwane Automotive City

The Development framework as completed in 2016 provides for a clear understanding of the development opportunities relation to the Tshwane Auto City in and around the Rosslyn area. The framework provides for an opportunity to expand on the existing automotive activities in the Rosslyn area.

The main aim is to transform Rosslyn and Klerksoord into a concentrated manufacturing cluster and the CoT into an automotive investment destination. The Automotive Sector Vision 2020 aims to increase local vehicle manufacturing to 1,2 million vehicles per annum by 2020.



The four main competitive advantages of the Tshwane Auto City namely:

- Competitive logistic opportunities
- Supporting existing business
- Young population demographics potential
- Gauteng economic competitive base



The frameworks aims to attract and retain investment in the study area. Further growth must be directed into the correct locations within the area. The consent of mixed uses with a focus on creating an area where people can live and work.

It should be a place where people can access employment, education, play and social services while supporting economic agglomeration.





One of the focus areas of the development framework is the provision of housing. As part of the greater development, Rosslyn Gardens will be aimed at the affordable housing market providing 1200 houses, close to transport routes and work.

Other housing developments such as Rosslyn x 37 will add about 3000 units to the Rosslyn area. These housing developments will be in close proximity to the proposed BRT Line 1 C and the Rosslyn and Lynross

PRASA stations. To the south of Rosslyn a proposal is for the development of 13 000 units over the long term between the Rosslyn Station and Lynross station.

## 5.2 REQUIRED PRECINCT PLANS (NON-PRIORITISED)

The following are precinct plans that are required to guide the development of specific precincts within the Region. It includes:

- Development Plan for the Future Urban Development Area in the west of the Region
- Development Guidelines and access management along Activity Spines and Streets in the Soshanguve Areas.
- Spatial Development Framework for the Akasia Metropolitan Core

Spatial Policy	Status	Approval Date	Purpose	Changes in planning Context	Proposed Future of Plan
Pretoria North Spatial Development Framework	Approved	10 October 2008	Densification	Re-planning with Rainbow Junction and BRT influence	Withdrawn and replaced by RSDF 2017: See 5.1.1
Mabopane Station Area Urban Development Framework	Approved	7 July 2006	Densification & mixed use	Area classified under the Tsosoloso programme.	Withdrawn and replaced by RSDF 2017: See 5.1.4
Soshanguve South Spatial Development Framework	Approved	29 October 2009	Development of Soshanguve South	BRT line reviewed	Withdrawn and replaced by RSDF 2017

# Region 1



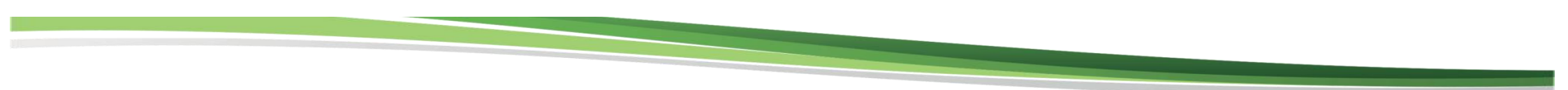
- |   |   |   |  |   |   |
|---|---|---|--|---|---|
| <p><b>Legend</b></p> <p><b>Density</b></p> <ul style="list-style-type: none"> <li>Transit Zone</li> <li>Local Nodes</li> <li>Transport Orientated Development</li> <li>Transport Corridor (BRT phase 1)</li> <li>500m Walking Distance (200/ha)</li> <li>700m Walking Distance (120/ha)</li> <li>Linear Zone</li> <li>High Density</li> <li>Suburban Density</li> <li>Low Density Zone</li> </ul> | <p><b>Land-Use</b></p> <ul style="list-style-type: none"> <li>Main Rural Roads</li> <li>Game / Nature Reserves</li> <li>High Potential Agriculture</li> <li>Sensitivity Protective Areas</li> <li>Cradle Buffer Zone</li> <li>Development Edge</li> <li>Future Urban Development Areas</li> <li>Community Service Centre</li> <li>Biodiversity Zone</li> <li>Rural</li> <li>Cemetery</li> <li>Mixed Uses</li> <li>Office</li> <li>Airport</li> <li>Campus</li> <li>Future Nodes</li> <li>Future Regional Cemetery</li> <li>Industrial</li> <li>Retail</li> <li>Educational</li> <li>Mining</li> </ul> | <p><b>Water Shed / Development Edge</b></p> <ul style="list-style-type: none"> <li>Urban Edge 2013</li> <li>CBD 25 km Radius</li> <li>Proposed RPTN</li> <li>Railway</li> <li>Proposed Railway</li> <li>Proposed Station</li> <li>Landfill</li> </ul> | <p><b>CBA Categories</b></p> <ul style="list-style-type: none"> <li>Critical Biodiversity Area 1</li> <li>Critical Biodiversity Area 2</li> <li>Ecological Support Area 1</li> <li>Ecological Support Area 2</li> <li>Other Natural Area</li> <li>Protected Area (Formal)</li> </ul> <p><b>Community Service Centres</b></p> <ul style="list-style-type: none"> <li>Community Service Centre</li> <li>Human Settlement</li> <li>Proposed Rural Service Centre</li> <li>Rural Service Centre</li> </ul> | <p><b>Highways</b></p> <ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> <p><b>Activity Spine</b></p> <ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> <p><b>Activity Street</b></p> <ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> <p><b>Mobility Spine</b></p> <ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> <p><b>Mobility Road</b></p> <ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> | <p><b>Roads Masterplan CLASS</b></p> <ul style="list-style-type: none"> <li>U1 Class 1_Primary metropolitan distributor</li> <li>U2 Class 2_Metropolitan distributor</li> <li>U3/A Class 3/A_District distributor</li> <li>U3 Class 3_District distributor</li> </ul> |
|---|---|---|--|---|---|



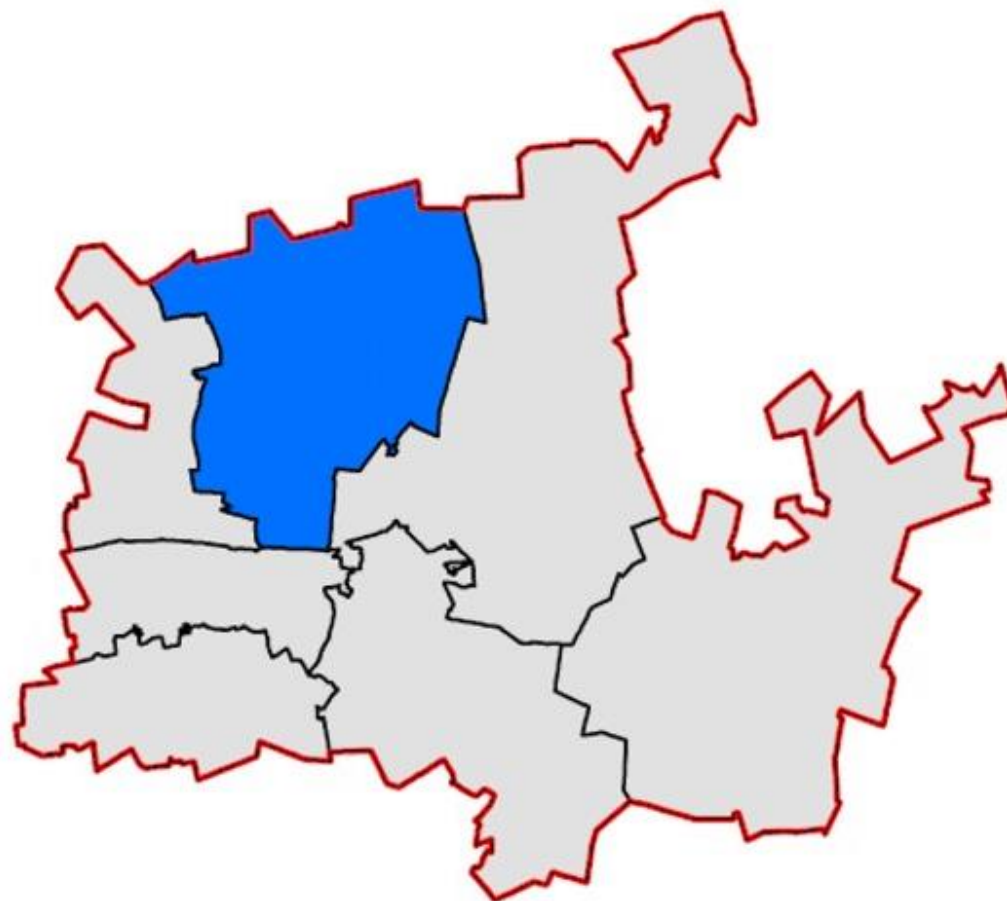


## 6. REFERENCES

- Cities Network, **Developing a Collective approach to Mixed- Use Development in Transit – Oriented Development Precincts**, June 2016.
- City of Johannesburg, **Complete Streets**, April 2013.
- City of Tshwane, **Comprehensive Integrated Transport Plan 2015 - 2020**, June 2016.
- City of Tshwane, **Integrated Development Plan Region 1 2015/16**.
- City of Tshwane, **Integrated Rapid Public Transport Strategy of the City of Tshwane**, November 2012.
- City of Tshwane, **Rapid Transit (TRT): Spatial Development Policy: Density and Intensification Guidelines**, March 2014.
- City of Tshwane, **Streetscape Design Guidelines**, August 2007.
- City of Tshwane, **Draft Streetscape Design Guidelines**, August 2013.
- City of Tshwane, **Tshwane MSDF 2012**, June 2012.
- City of Tshwane, **Tshwane RSDF 2013**, March 2014.
- City of Tshwane, **Wetland Management Plan**, March 2016.
- City of Tshwane, **Vulnerability Assessment to Climate Change**, September 2015.
- Gauteng Province, **Gauteng Spatial Development Framework: 2011**.
- Gauteng Province, **Gauteng 25 Year Integrated Transport master Plan** : November 2013
- ITPD, **The Transit Orientated Development Standard**, New York, 2015.
- RSA, **National Development Plan: 2030**, National Planning Commission. 2013
- RSA, **Spatial Planning and Land Use Management Act**, 16 of 2013.
- RSA, **National Department of Agriculture, Norms and Standards for Land uses Change**: 2016
- World Bank, **Transforming Cities with Transit: Transit and Land use Integration for Sustainable urban Development**, January 2013.



## SPATIAL DEVELOPMENT FRAMEWORK 2017 REGION 2



## TABLE OF CONTENTS

<b>ABBREVIATIONS</b>	i	2.5.1 HERITAGE AND CULTURAL SITES	21
<b>GLOSSARY OF TERMS</b>	iv	2.5.2 OPEN SPACE AND CONSERVATION AREAS	21
		2.5.3 RURAL MANAGEMENT	23
<b>PART ONE: INTRODUCTION</b>	1	<b>PART THREE: REGIONAL ANALYSIS</b>	
1.1 BACKGROUND	1	3.1 LOCALITY	26
1.2 LEGISLATIVE FRAMEWORK	1	3.2 AREA	27
1.3 APPROACH AND METHODOLOGY	2	3.3 DEMOGRAPHIC INFO	27
1.4 THE USE OF THIS DOCUMENT	2	3.4 WARD PRIORITIES	29
		3.5 REGIONAL CHARACTERISTICS	29
<b>PART TWO: METROPOLITAN CONTEXT</b>	4	3.6 STRUCTURING ELEMENTS	30
2.1 POLICY FRAMEWORK	4	3.7 PHYSICAL ENVIRONMENT	31
2.1.1 NATIONAL DEVELOPMENT PLAN; 2014	4	3.7.1 Natural Structuring Elements	31
2.1.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011	6	3.7.2 Strategic Land Uses	31
2.1.3 GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013	6	3.7.3 Nodes	31
2.1.4 THE SPATIAL VISION OF THE CITY	7	3.7.4 Mixed Use Activity Areas	32
2.1.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK	8	3.7.5 Residential Characteristics	33
2.1.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY	8	3.7.6 Social Vulnerable	33
2.1.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN	8	3.7.7 Movement and Transport Systems	34
2.2 THE CITY STRUCTURE	9	3.7.7.1 Road Network and Private Transport	34
2.2.1 HIERARCHY OF NODES	10	3.7.7.2 Public Transport	34
2.2.2 SPECIALISED ACTIVITY AREAS	11	3.7.7 Service Infrastructure	34
2.3 GROWTH MANAGEMENT	12	3.8 KEY ISSUES AND S.W.O.T ANALYSIS	34
2.3.1 URBAN EDGE	13	3.8.1 Strengths	35
2.3.2 TSHWANE RETAIL STRATEGY	13	3.8.2 Weaknesses	35
2.3.3 RETAIL IN URBAN CORES	13	3.8.3 Opportunities	35
		3.8.4 Threads	35
2.4 MOVEMENT AND CONNECTIVITY	14	3.8.5 Role and Function	35
2.4.1 URBAN FORM AND TRANSPORT INTEGRATION	15	3.8.6 Development Trends	35
2.4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE IS:	17		
2.5 ENVIRONMENTAL STRUCTURING CONCEPT	21		

**PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK**

4.1	INTRODUCTION	37
4.2	METROPOLITAN NODES	37
4.2.1	Kolonnade Metropolitan Core	38
4.2.2	Pretoria North/ Rainbow Junction Emerging Node	38
4.3	REGIONAL NODES / LOCAL NODES	39
4.3.1	Hammankraal Urban	39
4.3.2	Temba Local Node	39
4.3.3	Hammanskraal West Node	39
4.3.4	Stinkwater Local Node	40
4.3.5	New Eersterust	40
4.3.6	New Proposed Node	40
4.3.7	Dilopye: Proposed Future Node	41
4.4	JOB OPPORTUNITIES	43
4.4.1	Mixed Use Areas	43
4.4.1.1	New Proposed Tshwane Freight Hub	43
4.4.1.2	Bon Accord Area	43
4.4.1.3	Onderstepoort	43
4.4.1.4	Lavender Road	43
4.4.1.5	Derdepoort Area	43
4.5	FUNCTIONAL ROAD CLASSIFICATION AND ACTIVITY MATRIX	43
4.5.1	Development Guidelines	49
4.6	RESIDENTIAL	57
4.6.1	Concentration Zones	59
4.6.2	Linear Zones (Corridors and Spines)	61
4.6.3	Suburban Densification Zones	62
4.6.4	Low-Density Zones	62
4.6.5	Rural Divisions	63
4.7	SUSTAINABLE HUMAN SETTLEMENT	63
4.7.1	Informal Settlement Upgrades and Relocations	64
4.7.2	Social Housing	64

4.8	MOVEMENT SYSTEMS	66
4.8.1	RSDF movement System Proposals	67
4.8.1.1	Rail	67
4.8.1.2	Road network	67
4.8.1.3	Bus Rapid Transit (IRPTN System)	67
4.9	RURAL AREA	69
4.9.1	Major Rural Roads	69
4.9.2	Urban Edge	70
4.9.3	Development Edge	70
4.9.4	Future Urban Development Areas	71
4.9.5	Management Zones	71
4.9.6	Agricultural High Potential Areas	72
4.9.7	Sensitive Protected Areas/Biodiversity Zone	73
4.9.8	Sensitive Ridge Areas	73
4.9.9	Heritage and Cultural Protected Areas	73
4.9.10	Tourism Potential Places/Areas	73
4.9.11	Conservancies	73
4.9.12	Game and Nature Reserves	73
4.9.13	Mines and Places of Manufacturing	74
4.9.14	Human Settlements	74
4.9.15	Community Service Centres	74
4.10	OPEN SPACE AND ENVIRONMENTAL AREAS	76
4.11	WETLAND MANAGEMENT PLAN FOR TSHWANE	80
4.12	SOCIAL FACILITY PLANNING	81

**PART FIVE: DETAIL PRECINCT PLANS**

5.1	EXISTING PRECINCT PLANS	83
5.1.1	Pretoria North Spatial Development Framework	83
5.1.2	Kololonade Metropolitan Node	85
5.1.3	Regional Spatial Framework for Hammanskraal and Northern Cross Border Area of the City of Tshwane	85
5.2	REQUIRED PRECINCT PLANS	88
5.3	PLANNING POLICY RATIONALISATION	88

PART SIX: REFERENCE	90
---------------------	----

BRT

- Bus Rapid Transit

CBD

- Central Business District

CDS

- City Development Strategy

COT

- City of Tshwane

EMF

- Environmental Management Framework

GLA

- Gross Leasable Area

GSDF

- Gauteng Spatial Development Framework

GITP

- Gauteng 25-Year Integrated Transport Master Plan

IDF

- Integrated Development Framework

IDP

- Integrated Development Plan

ITP

- Integrated Transport Plan

LSDF

- Local Spatial Development framework

MSDF

- Metropolitan Spatial Development Framework

NDF

National Development Plan, Vision for 2030.

NMT

- No Motorized Transport

UP

- University of Pretoria

RSDF

- Regional Spatial Development Framework

SDF

- Spatial Development Framework

SPLUMA

- Spatial Planning and Land Use Management Act, 16 of 2013.

SPTN

- Strategic Public Transport Network

TOSF

- Tshwane Open Space Framework

ZOC

- As per CDS: Zone of Choice



**ACTIVITY NODES**

- Areas of concentration of mixed uses.

**ACTIVITY SPINES**

- Mobility routes connect a number of nodes or mixed use areas, serving as the main public transport channels of the region. These routes could support linear development although not necessarily continuous along its length. Higher order land uses should be accommodated in the nodes, but lower order land uses could develop in a linear fashion subject to alternative access opportunities. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes.

**ACTIVITY STREETS**

- Local collector roads supporting lower order land uses in a linear fashion along its length. Direct access to land uses is provided compromising mobility for activity. Development along activity streets should be permitted in accordance with a local spatial development framework.

**CAPITAL CORE**

- The Tshwane Inner city is identified as the Capital Core as it is the city's first order node amongst all metropolitan nodes. Traditionally, the inner city is also the Central Business District (CBD) of major cities. Tshwane is no different.
- Historically, the inner city was the geographical heart and center of what is now the Tshwane area. Over time, though, due to the extension of the Tshwane boundaries, the Inner City is no longer geographically central, but still plays a very important role with regard to the concentration of retail, office and government buildings to be found in the area.

**CITY OF TSHWANE METROPOLITAN MUNICIPALITY LAND USE MANAGEMENT BY –LAW**

- To give effect to "Municipal Planning" as contemplated in the Constitution of the Republic of South Africa, 1996, and in so doing to lay down and consolidate processes and procedures, to facilitate and make arrangements for the implementation of land development and

land development applications, spatial planning and a Land Use Scheme within the jurisdiction of the City of Tshwane, in line with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013), to provide for the processes and procedures of a Municipal Planning and Appeals Tribunal and to provide for matters incidental thereto.

**COMPACT**

- Compact urban form increases efficiency in the way people can use the city and in the way the city is managed. More people live in a smaller area in a compact city and this higher density allows for efficient provision of public transport, social and other services. The opposite of a compact city is urban sprawl.

**CONCENTRATION ZONES**

- The Concentration Zones are the primary focus areas for high density, medium to high-rise residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

**COT**

- City of Tshwane.

**DENSIFICATION**

- Increase of residential density following the guidelines of the Compaction and Densification Strategy, May 2005.

**EMERGING NODES**

- Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable.

Emerging nodes will be managed subject to growth management principles.

#### INDUSTRIAL USES

- As referred to on the framework plans includes: light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

#### INFILL

- The development of undeveloped or underdeveloped land within a developed urban area with infrastructure available.

#### INNER CITY

- An area in the City of Tshwane comprising the Pretoria Central Business District and surrounding residential areas.

#### INTENSIFICATION

- The process of intensifying activities or land use by increasing floor area, height or number of activities.

#### LIVEABLE STREETS

- Liveable Streets are defined as streets for everyone that are planned, designed and operated to enable a network of safe access for all users including pedestrians, bicyclists and transit riders.

#### LINEAR ZONES

- As per Compaction and Densification Strategy referring to activity spines and linear channels forming a lattice of movement.

#### LOWER ORDER LAND USES

- Land uses that are not usually associated with high impact on the surrounding environment and with low traffic generating characteristics.

#### METROPOLITAN NODES

- These are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the Tshwane context, Metropolitan

nodes are those nodes within the City (economically) benefiting primarily from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment.

- Such localities are also where the most extensive land use rights, including densities, are likely to be supported, in line with the growth management strategy.

#### MIXED USES

- Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional etc. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. Mixed-uses may refer to retail at street level, institutional on the floor above and residential on the upper floors, or only one use per erf. Principles regarding retail, commercial and industrial uses/rights are still applicable as indicated in this document. Mixed uses in an industrial area may include industry, commercial and retail uses.

#### NODES

- A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport facilities such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed uses development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and their significance within the city.

#### OFFICE USES

- These areas may accommodate land uses such as offices, retail industries, small places of refreshment, fitness centres, hairdressers, nail bars, medical consulting rooms, medical workshops such as a dental technician, prosthetist, orthotist, pathologists, optometrist technician and other businesses such as a beauty salon, pet salon, beauty/health spa, funeral undertaker, place of instruction and uses

subservient to the main use. Land uses will be considered on merit, shall be compatible to the surrounding area and shall focus on serving the local community.

#### PUBLIC TRANSPORT FACILITIES

- Including train stations, taxi and bus facilities with ancillary uses.

#### SPLUMA

- Spatial Planning and Land Use Management Act (Act 16 of 2013).

#### SUBURBAN DENSIFICATION

- As per Densification and Compaction Strategy: Residential densification in areas that are not located in concentration zones or along linear development spines.

#### SUSTAINABLE DEVELOPMENT

- Development that has integrated social, economic and environmental factors into planning, implementation and decision-making, so as to ensure that it serves present and future generations (in terms of SPLUMA objectives)

#### SUSTAINABLE HUMAN SETTLEMENTS

- The term 'sustainable human settlement' refers to a spatial concept that has two areas of emphasis: 1) human 2) sustainable (in terms of SPLUMA Principles) "The human-centred approach emphasises that a central purpose of planning is to ensure that the developmental needs and activities of people living in settlements are catered for and, in particular, that opportunities for people to achieve their full potential are maximised through their own efforts. This approach, rather than being purely cost- or technology-driven, is people-driven and democratic". It makes such settlements socially, politically and economically sustainable. But there is also the dimension of environmental sustainability.

#### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)

- Transport-orientated development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and

often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (i.e. a train station, metro station, BRT stop, or taxi rank), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TOD's are generally located within a radius of 500 to 700 m from a transit stop, as this is considered to be a convenient distance for pedestrians.

#### TRANSPORT CORRIDORS

- For the purpose of this RSDF these routes are defined as the approved BRT routes within Region 2. They are regarded as the main public transport channels of the region, which implies the prioritising of public transport and non – motorised transport over private transport. Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate. Densification along these corridors should be encouraged to maximise the public transport opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.

#### URBAN CORES

- Former township areas were developed as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to metropolitan nodes. The Neighbourhood Development Programme Grant (NDPG) is a nationally funded programme that aims to address the improved quality of environment in urban cores.

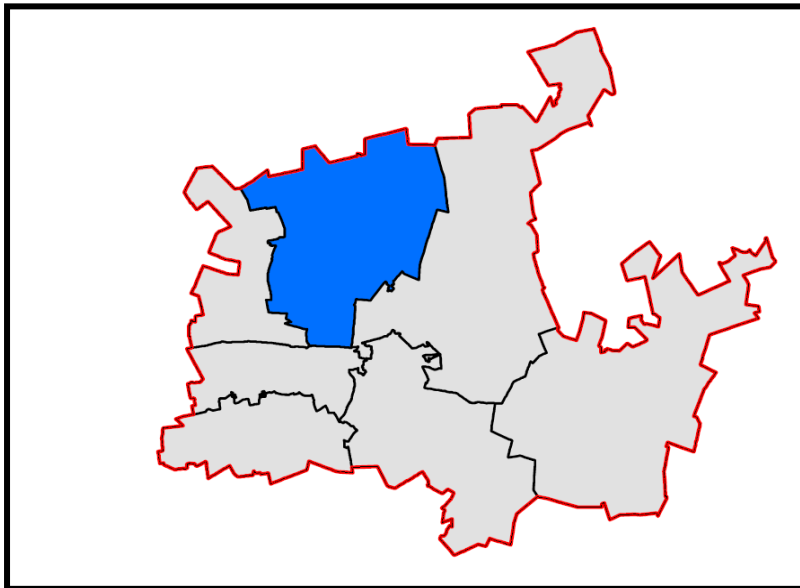
## 1. INTRODUCTION

### 1.1 BACKGROUND

The City of Tshwane (COT) embarked on processes to compile seven Regional Spatial Development Frameworks (RSDF's) for the administrative planning regions of the metropolitan area in 2011.

The RSDF's needed to be inter-linked and also support the Tshwane Metropolitan Spatial Development Framework (MSDF) of 2011 as well as the Tshwane City Development Strategy (CDS), Tshwane Densification and Compaction Strategy (2005) and Tshwane Open Space Framework.

This RSDF for Region 2 was therefore prepared within the context of the MSDF, the City Development Strategy and in support of the other RSDF's.



### 1.2 LEGISLATIVE FRAMEWORK

- The Municipal Systems Act, 2000 (Act 32 of 2000) determines that a municipality must adopt a framework for integrated development in its area in the form of an Integrated Development Plan (IDP) (Section 27).
- A Spatial Development Framework, which guides and informs all development forms part of the IDP (Section 35 (2)).
- The Gauteng Planning and Development Act, 2003 (Act 3 of 2003) determines that municipalities must formulate spatial development frameworks for their areas (Section 31 and 32).
- The content of these plans "shall be in the form of maps or a map together with explanatory report of the desired spatial form of the municipality".

A Spatial Development Framework must:

- Indicate where public and private development infrastructure investment should take place.
- Indicate desired development and land use patterns for different areas.
- Indicate where development of particular land uses should be discouraged or restricted.
- Provide broad indication of the areas where priority spending should take place.
- Shall provide guidelines for development and land use decision-making by the municipality.

This Regional Spatial Development Framework was prepared in accordance with the above mentioned provisions.

### 1.3 APPROACH AND METHODOLOGY

The approach to the preparation of the RSDF was based on the following approved policies and plans:

- National Development Plan; 2014
- Gauteng Spatial Development Framework: 2011.
- Gauteng 25- Year integrated Transport Master Plan : 2013
- The MSDF objectives, vision and supporting strategies as well as development issues were used to inform the role and function of the region. (MSDF 2012).
- City of Tshwane, Rapid Transit (TRT): Spatial Development Policy: Densification and Intensification Guidelines, 2014 .
- The City of Tshwane Comprehensive Integrated Transport Plan: 2016
- The City of Tshwane Bioregional Plan: 2016.

The framework was also based on best practices applied internationally on the development of MSDF / RSDF. See references used at the end of the document in the compilation of the framework. Furthermore, this framework has been compiled inter alia in terms of the relevant provincial legislation and the Spatial Planning and Land Use Management Act, (Act 16 of 2013).

The RSDF 2017: Region 2 was prepared in accordance with the following principles.

- Indicate where densification should take place and promote economic and social inclusion. (SPLUMA , Objectives and Principles 7(a))
- Indicate how urban regeneration should take place in the Region in order to stimulate land markets (SPLUMA, Objectives and Principles 7(a)).
- Indicate where public and private development infrastructure investment should take place. (SPLUMA , Objectives and Principles 7(a))
- Indicate desired development and land use patterns in the Region 2 in order to achieve mixed income housing, community, educational and job opportunities that support the Bus Rapid Transit system. SPLUMA , Objectives and Principles 7(a))
- Provide for the opportunity to walk and cycle in the Region and move away from car orientated planning.

- Provide broad indication of the areas where priority spending should take place in the Region and what the impact on services will be. (SPLUMA , Objectives and Principles 7(a))
- Provide guidelines for development and land use decision-making by the municipality in the Region 2.

This framework obtains its guidelines, objectives and principles from the relevant National, Provincial and Local Planning Policies as prescribed by the Spatial Planning and Land Use Management Act, 16 of 2013. In the following section the different policies and guidelines are discussed briefly.

### 1.4 THE USE OF THIS DOCUMENT

As a point of departure in terms of the governance model adopted by Council, it should be understood that no decision on site specific development application can have the effect of materially amending the RSDF's or undermine the IDP with reference to section 35 of the MSA.

The burden on a local authority in the preparation of the IDP and the SDF's with regard to public participation limits the power of a local authority to, without proper consideration amend, undermine or redirect policy. The citizenry within the jurisdiction of the City of Tshwane has the right to be able to rely on the content of the IDP and SDF's and any amendment thereto should not be taken lightly.

In particular, no development proposal may undermine the budgetary provisions contained in the IDP read with the SDF. Should such development proposals have merit, they should be tested against the overall objectives of the policy documentation and formally incorporated to ensure integrated, funded and sustainable development takes place, that reach the objectives set out in the policy documents. The RSDF's indicate where and how discretionary powers are granted to deal with applications on merit. A merit deviation should be based on specific criteria or threshold requirements, which requirements shall in the sole opinion of the local authority be complied with, in order to deviate or amend the RSDF or any component thereof. Keeping in mind that if it is so material as to impact on the overall objectives of the SDF's or IDP, that it can only be formally amended by the legislative body of Council, with public participation.



## MAPS AND PRINCIPLES

The different principles as indicated in Chapter 4 must be interpreted per Map and against the principles as specified in the document. For Example density applications will be evaluated according to the density map and accompanying principles as specified in chapter 4. Alternative land uses and activities will be evaluated according to the movement and activity map and accompanying principles. The composite map at the end of the document must only be regarded as a schematic representation of the principles.

## INFRASTRUCTURE

Development proposals, whether in line with these documents or on merit, should only be supported if infrastructure to the satisfaction of the local authority can be provided in line with the overall IDP. This should include the provision of infrastructure by developers that may have an impact on the operational budget of Council. The availability of infrastructure shall not be regarded as sufficient support for a development proposal. The prioritisation and provision of infrastructure is within the sole discretion of the local authority and shall be considered and evaluated based on accumulative impact and prioritisation of resources.

## TRANSITIONAL ARRANGEMENTS

In order for the City of Tshwane to ensure that pending applications that were submitted in line with the rescinded MSDF/SDF's or RSDF's to be substituted by the reviewed MSDF and RSDF's, to be effectively and efficiently evaluated against policy the following transitional measures shall apply:

Any development application which relied on the provisions of the MSDF's or RSDF's in support of consideration of the said applications, that are pending before the City of Tshwane at the time of the adoption by Council of the reviewed MSDF's and RSDF's, shall be dealt with as if these revised documents have not been adopted.

These pending development applications shall be finalised based on the policy provisions contained the rescinded MSDF's and RSDF's or any component of these documents; provided that where applications are pending before the local authority and the reviewed MSDF's and RSDF's are

in support of an application that the local authority in their sole discretion and interpretation of whether in support or not, the application may be considered against the reviewed MSDF's and RSDF's. This provision shall not be applicable if the application by evaluation against the reviewed MSDF's and RSDF's shall have the result of negatively impacting on the rights of an applicant.

The RSDF is not the sole mechanism in determining the suitability of any potential change in land use, but should be used in conjunction with requirements as may be determined by infrastructure and other relevant aspects that may not be contained in the RSDF.

## 2. PART 2: METROPOLITAN CONTEXT

### 2.1 POLICY FRAMEWORK

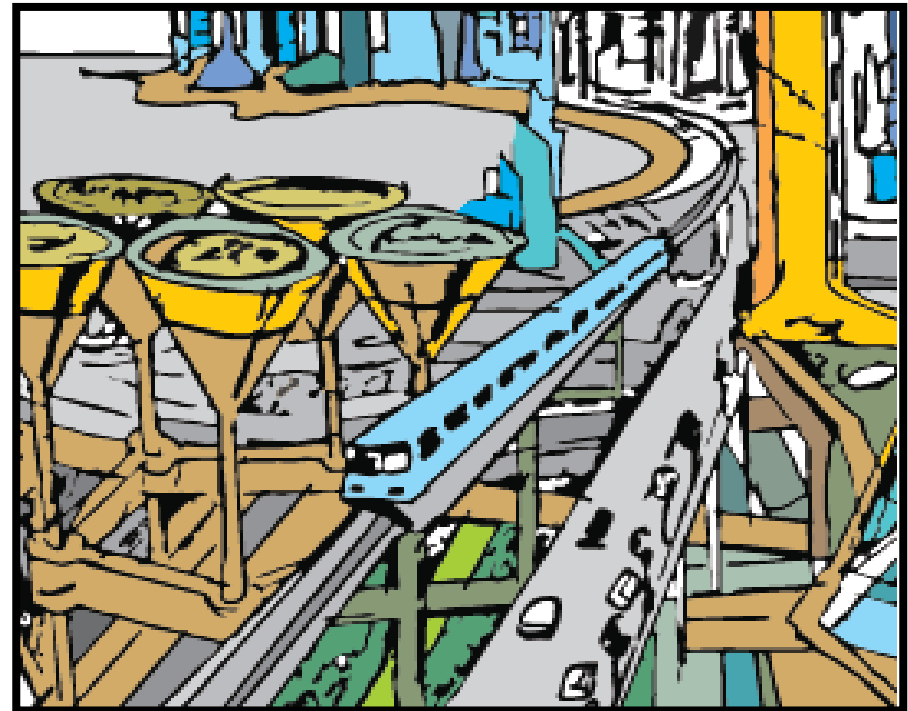
#### 2.1.1 NATIONAL DEVELOPMENT PLAN; VISION FOR 2030: 2014

The overarching principles for spatial development in terms of the National Development Plan (pg. 246) are that all spatial development should conform to the following principles:

- **Spatial justice** – Unfair allocation of public resources between areas must be reversed and the confining of particular groups to limited space must be abandoned. The **increasing of urban population density** while improving the liveability of the cities, providing affordable public transport, it is seen as a complementary strategies to this principle (pg. 16). Transportation networks are seen as the key to spatial transformation (pg.238) and the accommodation of diverse household types is encouraged. (pg. 254).
- **Spatial sustainability** – Sustainable patterns of consumption and production must be supported and ways for living that do not damage the natural environment. **Walkable neighbourhoods**, for example, reduce the need to travel and limit greenhouse gas emissions. In terms of this principle a clear strategy for densification of cities through land use-use planning is proposed (pg. 33).
- **Spatial resilience** – Reduce the vulnerability to environmental degradation, resource scarcity and climate shocks. Ecological systems should be protected and replenished and support the transition to environmental sustainability (pg. 256)
- **Spatial quality** – The aesthetic and functional features of housing and the built environment need to be improved to create **more liveable, vibrant and valued places**. Prioritising public transport

and the **discouragement of private car** users is seen as one of the strategies in terms of this principle (pg.164).

- **Spatial efficiency** – Productive activity and **job creation must be supported**. Efficient commuting patterns and circulation of goods and services must be encouraged. Further procedures must not impose unnecessary costs on development. Unlocking development potential is seen as part of the spatial vision of the development plan (pg. 247)



### 2.1.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011.

**G2055** initiative is an initiative aimed at preparing the Gauteng City Region for a population of approximately 28 million people by 2055. The G2055 vision is for Gauteng to have a strong knowledge capital, be the hub of innovation to Africa, and be a liveable, prosperous, competitive, equitable, accessible and sustainable City region. The initiative is spatially addressed in the Gauteng Spatial Development Framework (approved in February 2011).

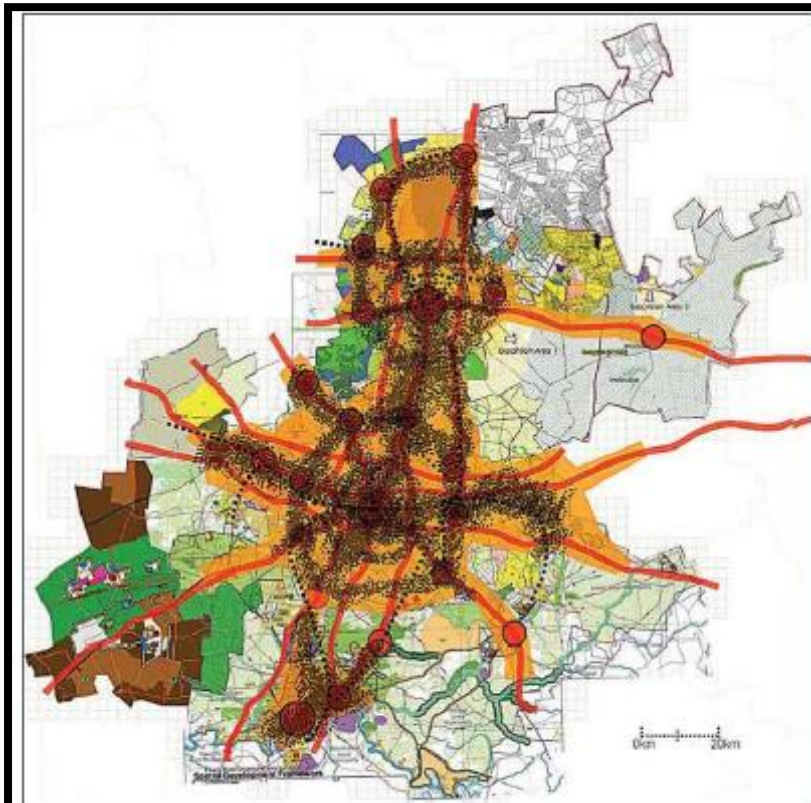


Figure 2-17: Proposed consolidation of urban development in Gauteng Province

Source: Gauteng Spatial Development Framework: 2011

The Gauteng Spatial Development Framework (GSDF) provides a common future spatial structure for the Gauteng Province and is clear on the fact that growth must be structured and directed (pg. 10).

The primary structuring elements identified within the GSDF are those of:

- urban mixed-use activity nodes
- open space and green system
- public transit and movement routes
- urban corridors and activity spines

Given the comprehensive system of discernible urban corridors and public transport potential within Gauteng, consolidation of **urban development should be concentrated around existing primary urban centres, urban nodes, and urban corridors** and along urban activity spines. (pg.52)

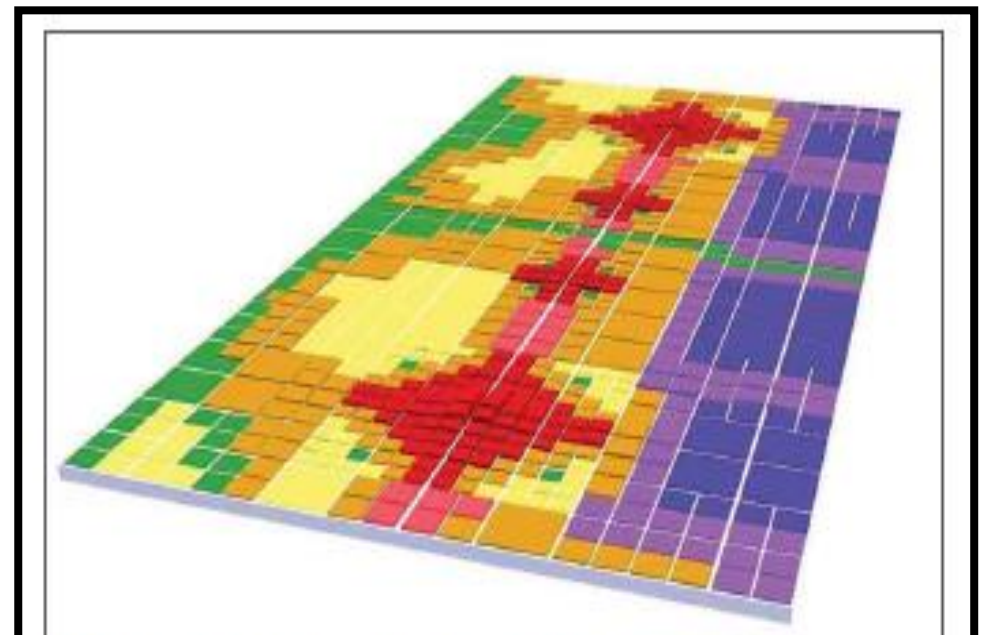


Figure A.2.7: Perspective model of a section of corridor

Source: Gauteng Spatial Development Framework: 2011



In terms of corridor development the GSDF seeks to achieve the following:

- The containment of urban sprawl by way of growth management that seeks to advance compaction, **residential densification**, and in-fill development, and mixed land uses within the existing urban fabric will promote walking and cycling (pg. 65).
- the social and **economic integration** of disadvantaged communities into the urban system, particularly those on the urban periphery;
- the establishment of a hierarchy of nodes coupled with the improvement of **linkages and connectivity** between these nodes and areas of economic opportunity (pg. 86);
- **land use-public transport integration** through nodal and corridor development (pg.96)
- the promotion of viable public transport systems and **reduction of reliance on private mobility** with strong emphasis on **densification along the priority public transport routes**, especially rail and BRT routes which form the basis of the IRPTN movement system (pg. 83);
- public transport routes become the priority areas for **densification** and infill development;

Evident from these principles is the strong emphasis on public transport becoming the basis of the 'Movement system' in the province, and urban corridors, activity spines and public transport routes. Creating the framework for future processes of **densification** and intensification, including Transport Oriented Development (TOD) comprising mixed uses around road and rail based public transport facilities (pg. 136).

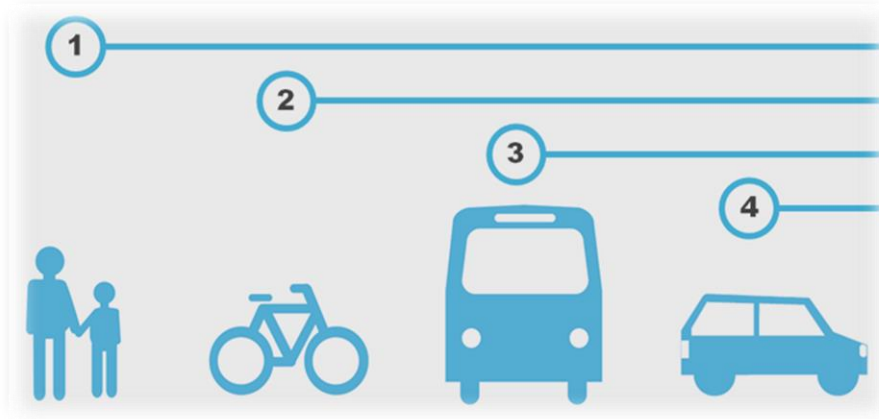
### 2.1.3 GAUTENG PROVINCE, GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013

The plan proposes a radical paradigm shift in spatial and transport planning. It serves as a point of departure from apartheid spatial planning, land use and mobility patterns and ushers in an innovative way of structuring our future societal development. It serves as a road map for more detailed planning, particularly in public transport, land use, human resource development and socio-economic development. It is underpinned by founding principles such as economic beneficiation; doing things in a smart and sustainable manner; and integrating transport networks, modes and services interventions" have been identified of which the following two clusters relate to BRT corridor planning (pg.23)

- **Land Use Development**  
Subsidised housing provision within urban core areas  
Land use densification in support of public transport;
- **Strategic Public Transport Network**  
Mainstreaming non-motorised transport (NMT)  
Reinforcing passenger rail network as the backbone of the system  
Extending the integrated rapid and road-based public transport networks

Other important principles are the promotion of NMT as part of a sustainable transport system, e.g. include NMT (walking and cycling) as a feeder system to all public transport systems. Redesigning and/or creating a built environment (urban and rural) to inclusively accommodate NMT users according to universal design principles as may be appropriate in terms of social and economic objectives (pg.71).

**Diagrammatic representation of the modal hierarchy approach depicting an operational Category that favours the NMT modes**



Source: Gauteng 25 Year integrated Transport master Plan: 2013

Extensive land use densification and more efficient land use and transportation integration around the provincial public transport network will make a significant contribution towards enhancing the viability of public transport in the province. This would require large scale processes of infill development, densification and redevelopment of older urban areas in the province and the containment of urban sprawl by way of a comprehensive urban development boundary for the Gauteng City Region. It also proposes developing spatial compacts which promote processes of densification, intensification and infill development within the existing urban footprint of towns and cities. (pg.136).

Municipalities should seek to achieve the following density guidelines in various functional areas:

- High Density: 80 units per hectare and higher within 1 kilometre from the provincial IRPTN network and activity nodes served by this network;
- Medium Density: 30 to 79 units per hectare within 1 kilometre from the remaining provincial

In terms of the Provincial Transport Master Plan all municipalities in Gauteng should identifying priority nodes/areas along these corridors and **compile detailed Precinct Plans** for these areas (pg.32). The plan should be based on the following:

- Promote processes of densification and infill development.
- Reserving a percentage of spare bulk engineering services capacity to accommodate development along priority public transport corridors.
- Relaxing parking requirements for higher density developments along public transport Corridors.
- Facilitating and promoting non-motorised transport within the priority public corridor development areas by way of dedicated pedestrian and cycling lanes.
- Charging users for parking directly as opposed to hiding the true cost of parking in increased rent or tax subsidies.
- Improving public transport infrastructure significantly and subsidizing public transport costs.
- Road space reallocation aiming to re-balance provision between private cars and more sustainable modes.

#### 2.1.4 THE SPATIAL VISION OF THE CITY

The Spatial Vision of the City of Tshwane is to conduct integrated planning, maximising on spatial efficiencies for optimal service delivery.

- A Spatially Efficient Capital City that is Sustainable, Competitive and Resilient:
- Sustainability: Optimising the use of land through densification, infill and consolidation, resulting in a city with spatially integrated equal opportunities, correcting spatial imbalances, creating sustainable settlements and advancing social equity.

- **Competitiveness:** Instilling investor confidence by ensuring a well-managed quality built environment through enforcement of relevant legislation, maintenance and management of infrastructure and strategic investment in infrastructure focus areas targeting broad-based economic growth.
- **Resilience:** Being innovative and adaptable, whilst maximizing spatial opportunities and in turn maximizing economic growth opportunities through strategic investment decisions.

### 2.1.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK. (2012)

The MSDF represents the spatial interpretation of desired growth and development directions for the City. It spatially focuses economic and infrastructure development and gives spatial expression to the development plans above (CDS and IDP), both for the long-term and the medium term.

The purpose of a metropolitan spatial framework for the city is to provide a spatial representation of the city vision and to be a tool to integrate all aspects of spatial (physical) planning such as land use planning; planning for pedestrian movement vehicular and other movement patterns; planning regarding buildings and built-up areas; planning of open space systems; planning of roads and other service infrastructure; as well as to guide all decision-making processes regarding spatial (physical) development. It is the intention of the MSDF to restructure our fragmented, inequitable and inefficient urban form to create a more equitable, efficient and environmentally and financially sustainable urban dispensation in line with current legislation and policy.

The compaction and functional integration of the city are normative directives from national level, and implies:

- higher density urban development,
- greater mixing of compatible land uses and
- focussed concentration of high-density residential land uses and intensification of non-residential land uses in nodes,

around transit stations (such as the Gautrain, BRT, Rail and other formalised intermodal transport facilities).

### 2.1.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY (APPROVED 21 NOVEMBER 2012)

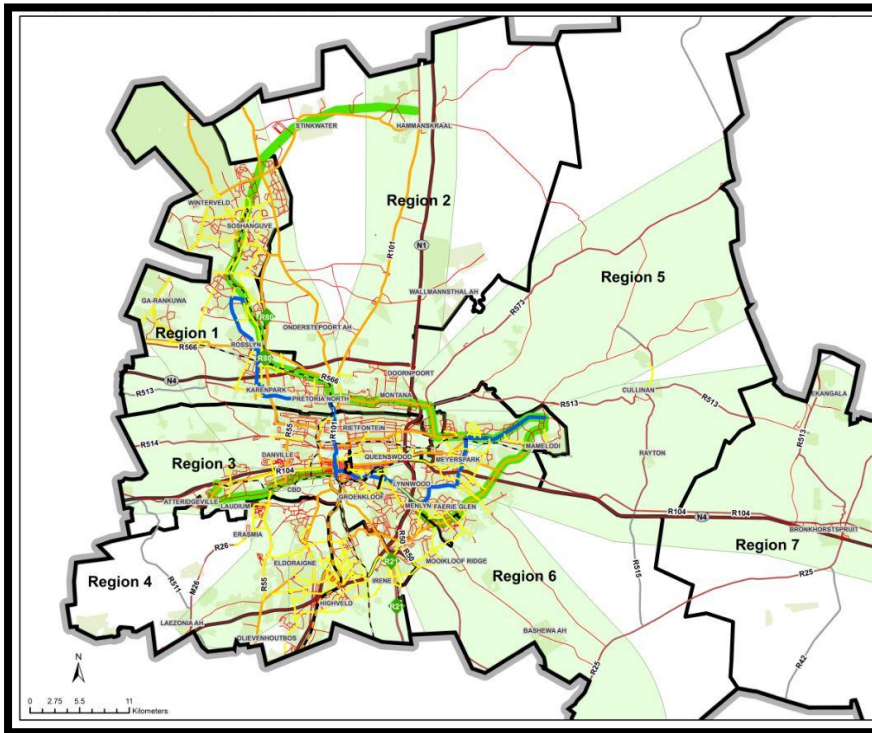
The purpose of the Policy is to provide the City with Operational guidelines for the IRPTN network. The document also provides guidelines in terms of the preparation of planning for IRPTN corridors. The key characteristics of the strategy include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 500 - 900 metres of a transit station
- Reduced parking ratios for private cars.

### 2.1.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN (CITP) (APPROVED 6 JUNE 2016)

The Comprehensive Integrated Transport Plan set out the transport goals and objectives for the City that are aligned with the City's mission and are the targets which the City aims to achieve:

- Plan and develop a transport system that improves accessibility and mobility whilst **enhancing social inclusion**;
- Provide a fully integrated public transport system;
- Develop a transport system that drives economic development;
- Improve the safety and security of the transport system;
- Develop a transport system that reflects the image of the city;
- Develop an efficient, effective, development orientated public transport system and **integrates land use and public transport plans**;
- Develop a transport system that is environmentally sustainable.



The CIP is built on the following five key pillars. A few policies and strategies are provided for each pillar as a means of illustration:

- I. Sustainable transport:
  - Provide a transport system with low negative environmental costs yet high positive social value, which supports resource efficient economic development.
- II. Public-transport orientated:
  - **Prioritising public transport and Non-Motorised Transport (walking and cycling) over private transport;**
  - Provide public transport access to all residents, including tourists and visitors

- **Land use to support and promote public transport** e.g. linking economic nodes with public transport, increase **land-use densities along routes** and around modal transfer facilities.

### III. Integrated transport:

- Integration of land-use with transport, e.g. **densification along public transport corridors;**
- Integrated planning and implementation between City of Tshwane departments, as well as between the City and other national and provincial authorities.

### IV. Transport in support of a Smart City:

- Affordability and accessibility of technology e.g. use of electronic communication connections for transport, safety and security (urban traffic control, passenger information, CCTV cameras, etc.);
- Being “smart” by using scarce resources more effectively and through the application of suitable technology e.g. automatic fare collection using smart cards;
- Provide modern public transport modes e.g. BRT, LRT, Gautrain.

### V. People-friendly:

- **Social inclusion, with an emphasis on access**, through the availability of public transport, to opportunities and services;
- Provide affordable, easy to use, safe and secure public transport, including universal access and **facilities for walking and cycling.**

## 2.2 THE CITY STRUCTURE

The CoT covers an area of 6260 km<sup>2</sup> and is the result of an amalgamation of the previous City of Tshwane, which was established in December 2000, and the three former Metsweding Municipalities (Nokeng tsa Temane Local Municipality, Kungwini Local Municipality, Metsweding District Municipality), found directly east and south east of the previous City of Tshwane. The City of Tshwane (CoT), located within the Gauteng Province, is bordered by the provinces of Limpopo to the north, Mpumalanga to the east, the Ekurhuleni and City of Johannesburg

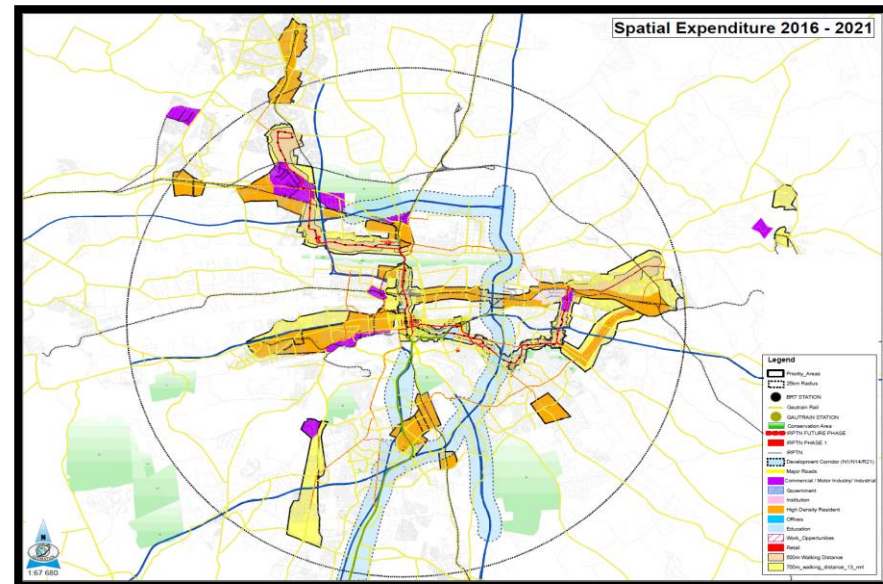
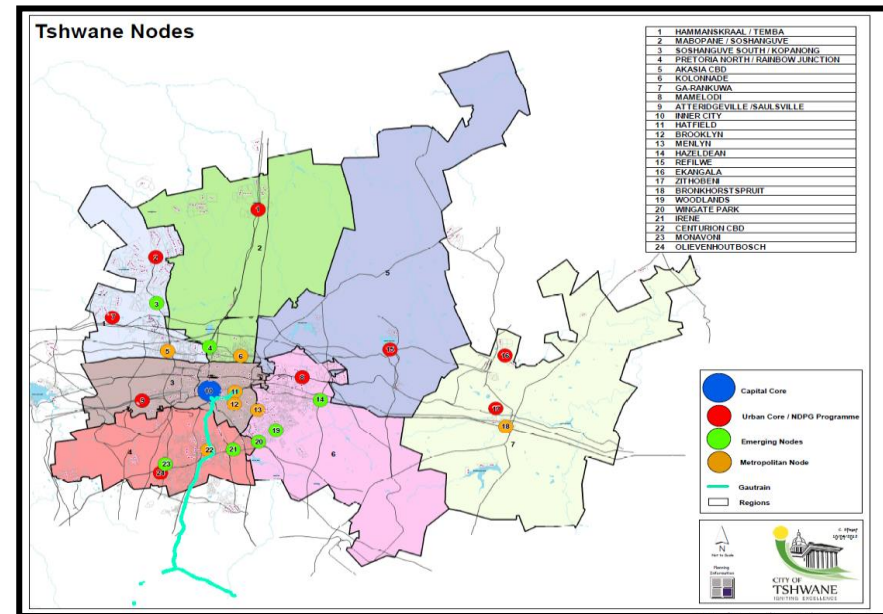


Metropolitan Municipalities to the south and North West province to the west. With Gauteng being at a total area of 18 178 km<sup>2</sup>, the City of Tshwane, at 6260 km<sup>2</sup>, covers just more than a third of the surface area of the entire province.

Tshwane is divided into 7 planning regions each with their own unique characteristics.

### 2.2.1 HIERARCHY OF NODES

Understanding that the current needs far outweigh the resources, it is important that the City focuses on the opportunities that exist for exponential growth and investment in the long term. These opportunities will be determined within the spatial vision by indicating where growth will occur in transport, housing, energy, water, recreation, education, health infrastructure and services. As explained by the smart growth concept. The spatial plan will promote efficient and effective resource allocation, ensuring that resources such as infrastructure are delivered in the right place and at the right time. This spatial plan also provides a sense of certainty for the future, and thus, investor confidence.



The key issue is that nodes within the city do not compete but complement and support each other so that the synergies between them maximise the potential of the City as a whole.

An important distinction is made between three nodal typologies i.e.

**Metropolitan Nodes / TOD** - these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Metropolitan nodes are those nodes within the City benefiting from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment. Such localities are also where the most extensive land use rights, including densities, are likely to be supported, also in line with the growth management strategy. Menlyn, Hatfield, Brooklyn, Kolonnade and Centurion City are inter alia presented as Metropolitan Nodes

**Urban Cores**- former township area were created as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan Nodes. The Neighbourhood Development Programme (NDPG) is a lead City programme and the main instrument 'township renewal'. Suilsville, Zithobeni, Ekangala, Hammanskraal and Refilwe are presented as Urban Cores.

**Emerging nodes**- over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the

*potential* for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Pretoria North/ Rainbow Junction Node is presented as one of the Emerging nodes.

## 2.2.2 SPECIALISED ACTIVITY AREAS

There are nodes in the metropolitan area that are characterised by largely mono-functional land uses taking up large, concentrated and defined space. The character of the areas ranges from industrial to high technology smart industries, medical facilities, educational, research and conservation facilities. It is important to acknowledge these specialised activity areas not just in terms of their scale, but because of their sphere of influence in terms of generating movement, opportunities and linkages with other areas. These linkages do not only refer to physical linkages, but also to "connectivity" in a broader sense, such as between institutions of learning and research.

The Blue IQ initiative of the Gauteng Provincial government contributes significantly towards the specialised activity areas in Tshwane. Blue IQ aims to deliver strategic economic infrastructure to catalyse sustainable economic growth and to indirectly contribute to job creation; to influence the composition of exports, and influence the diversification of Gauteng's GGP. The Blue IQ initiative focuses on four growth areas:

- Business
- High value-added Manufacturing (high value-add)
- Logistics
- Information and Communication Technology (ICT)
- Tourism and conservation

### 2.3 GROWTH MANAGEMENT

Growth management is a spatial concept that encompasses all aspects that ensure efficient, optimal and sustainable development of the physical environment. A key principle of this concept is smart growth. The smart growth principle guides development such that resources and services are provided in such a manner that they meet the demands of the affected population over a long-term period.

The role of nodes within the growth management concept is key. Nodes are those parts of the city where development should be focused. The widest variety of services and opportunities should be provided at nodal points, at degrees relative to their nodal status. The costs of urban sprawl and associated low densities are undeniable. Due to the limitation that development can be subjected to through the inability to provide bulk infrastructure, it is imperative that available infrastructure within the nodes are used optimally. This requires densification and intensification of land uses through compaction and infill developments. The maximisation of urban management within the nodes requires that these areas are specifically delineated within the greater developable areas for optimal growth.

The Compaction and Densification Strategy that was approved by the Council contains proposals for densification of the metropolitan area, which have local implications for each of the planning regions. The interpretation of the densification strategy for every region required special attention in the preparation of the RSDF 2017.

The strategy contains proposals for four key density zones:

- Concentration zones (high density / transit zones).
- Linear Zones i.e. corridors and spines (medium density).
- Suburban Densification (low to medium densities).
- Low-density zones

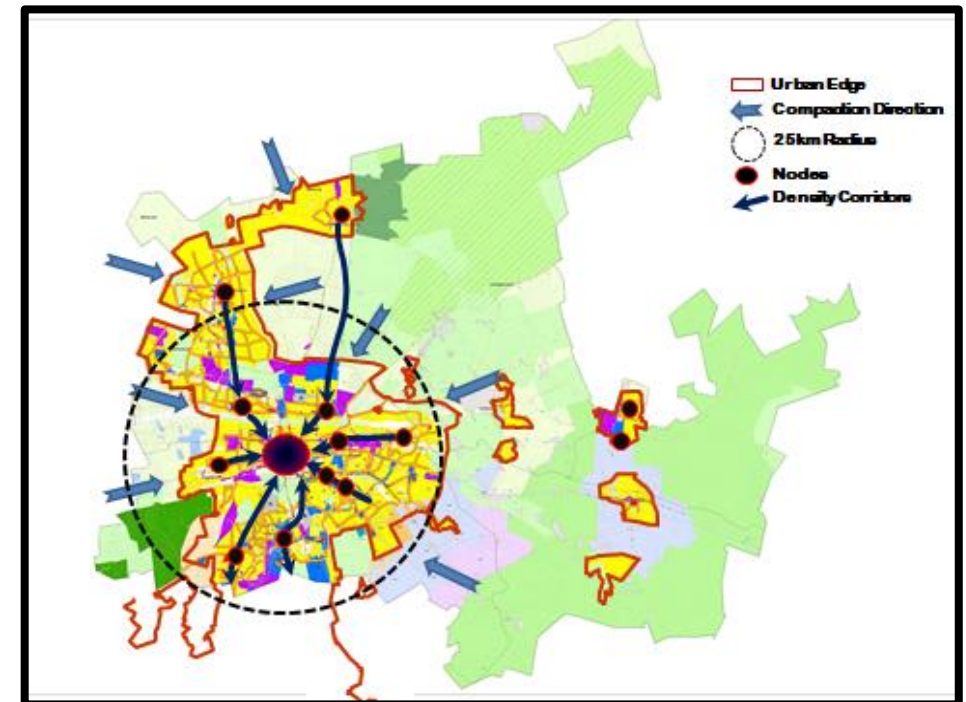
Densification and infill are sound urban development principles to pursue, but caution should be issued that most existing developed areas were not planned to accommodate higher densities and that in general the present road infrastructure cannot accommodate the additional traffic that

densification implies. Densification should therefore be approached holistically striving to also support a better public transportation system as a dual development process.

Densification is necessary for a number of reasons but most importantly it should support the provision of all urban services as best as possible.

Looking at the city from a metropolitan perspective ideally, areas with higher densities should be in the following localities:

- As close as possible to the CBD.
- Close to metropolitan core areas and services.
- In the proximity of areas with job opportunities.
- Close to public transportation facilities (major road and railway facilities).



These delineations extend to the containment of areas where development is permissible to areas where little or no development is permissible- such as environmentally sensitive or conservation areas.

### 2.3.1 URBAN EDGE

One tool for providing such delineations as discussed above is the urban edge. The urban edge will contribute to the achievement of the strategic objectives by conserving valuable environmental areas which would otherwise be compromised by development and promoting the use of existing infrastructure through redevelopment, infill development and densification within the edge thus achieving development that is sustainable. The urban edge also encourages the agglomeration of economies within the edge, encouraging scattered secondary or emerging nodes to develop into consolidated primary nodes as opposed to leapfrog development. The edge also ensures the protection of land- an exhaustible resource- by encouraging Brownfield developments instead of Greenfield developments.

### 2.3.2 TSHWANE RETAIL STRATEGY

A Tshwane Retail Strategy was formulated to guide decision-making on the development and management of retail nodes for the city.

Retail development should balance the needs of the retail sector with the needs of communities, urban functionality and sustainable development and should make a positive contribution to the overall urban environment. The local authority will take a more facilitative approach toward retail developments, provided that the actual development is in line with and support the urban objectives and contribute to a more functional, equitable, convenient and attractive metropolitan environment. Retail development should therefore be approached holistically, looking at the economic, social and environmental aspects.

The principles that underlie the approach taken in retail developments in Tshwane can be summarised as follows:

- To allow market forces and the free economy to determine the trend and tempo of retail development within the parameters set by the Tshwane Retail Policy.
- The desirability of a retail facility will be influenced by the broader area and the specific site as well as the degree to which the retail development contribute to the enhancement of the overall environment and the achievement of metropolitan development goals, as set out in the MSDF.
- Retail developments must be sensitive towards its location and surrounding environment, and be designed and sited in such a way that it contributes to the overall quality of the environment and not detract from it. A number of qualitative aspects will therefore have to be considered when evaluating retail applications, such as urban design, landscaping, public transport, interfaces etc.
- Retail applications and the evaluation thereof have to take consideration of the local context, i.e. the same guidelines and criteria do not apply uniformly to all parts of the metropolitan area.

Because of the fact that Tshwane comprises a large number of diverse areas, each with its own history, level of maturity, growth, population characteristics etc., it would be unwise to have a singular approach to retail development as a land use.

For this reason, a package of spatial strategies has been developed, that aim to address the relationship between specific contextual circumstances and future retail potential. These strategies should be interpreted more on local level, and are reflected in the Regional Spatial Development Frameworks.

### 2.3.3 RETAIL IN URBAN CORES

It is important to look at the retail development within urban cores relative other parts of the city in context. The retail developments in urban cores are not developed to the same level as in other parts of the city due to the inequitable development policies of the past. Nonetheless, these tables reflect that retail activity does serve as an economic activity within urban



cores, albeit not to the same extent as in the metropolitan cores which have a long history of favourable development policies.

Within the current context of the city's development policies where equal opportunity is promoted, it is also important to note that retail development, as with many other economic activities, is largely a function of the private sector. The private sector is market-driven, which means that it responds to demand and consumer characteristic. At the same time, the consumer will seek out very specific retail typologies depending on their specific characteristics as a consumer. This supply-demand relationship between developer and consumer will remain a permanent state of affairs. At present, the extent of retail development has largely catered for the consumer group mostly found within urban cores. Previously, due to a lack of private transport and expensive public transport, low-income earners were compelled to source their needs from small localised township retailers. Lower priced goods available at township shopping centres or establishments offered not only the variety of goods available, but also allowed goods and services at more affordable prices.

But the population profiles throughout the city are changing as it becomes more integrated spatially, socially and economically. These new population dynamics require that access is given to the upwardly mobile of the former township areas so that spending within the retail arena or urban cores can be directed inward to contribute towards further developing the urban cores. Those that move up the social and income ladder that previously preferred to shop outside townships in upmarket malls (known as 'outshopping') may to a large extent start redirecting their expenditure to township malls if upmarket retail developments are increasingly brought into the urban cores.

The importance of increased, high quality retail development within urban cores is thus two-fold:

- Equitable access to retail opportunities
- Economic stimulation by redirecting spending that might otherwise leave the urban core back towards the core to increase development

While retail development is driven by the private sector, the city has a role towards facilitating the ease with which developers invest in the urban cores. This especially relates to service infrastructure and supporting development

policies. Through the NDPG programme, public initiatives will support private funding within urban core areas.

The table below sets out the various urban cores identified within the City of Tshwane

Township/Catchment Area	Node/Precinct
Mamelodi/Nellmapius	1. Eerste Fabrieke Station Node
	2. Solomon Mahlangu Precinct (Denneboom Station)
	3. T-Section Node
Atteridgeville	4. Saulsville Station Node (includes: Saulsville Station, Atteridgeville Station, CBD and resorts)
Mabopane/Soshanguve	5. Mabopane Station
	6. Soshanguve South x14 (Klip-kruisfontein)
Hammanskraal/Temba	7. Hammanskraal/Temba Node
Olievenhoubosch/Monavoni	8. Olievenhoutbosch Node
Refilwe	9. To be determined
Zithobeni	10. To be determined
Ekgangala	11. To be determined
<b>Node being considered for future incorporation</b>	
Mabopane/Soshanguve	Garankuwa Node

## 2.4 MOVEMENT AND CONNECTIVITY

Movement of people and goods throughout the metropolitan area is of city-wide importance. Movement in Tshwane can be described by the following diagram (the diagram has been moved to page 15) showing major movement patterns in the area.

- Many public transport dependant persons moving into the CBD from the north, the west and the east characterise every morning peak.

- Masses of private vehicles originating in the south and south-eastern parts move from the city in a southerly direction towards Johannesburg.

#### 2.4.1 URBAN FORM AND TRANSPORT INTEGRATION

In all successful cities there is a strong linkage and interaction between movement patterns and systems and urban development. It is necessary that land use planning is done in a manner which supports public transport but it is also necessary to ensure that mass public transport planning promotes and supports urban restructuring and sustainable urban development.

The city historically developed around a strong central core as mono-centred city. Private investment patterns changed over time with increasing car ownership and a ring of satellite nodes developed. These satellite nodes developed into viable decentralised locations, creating a multi-nodal urban form.

A further implication of the development of the satellite nodes is that the City of Tshwane is becoming increasingly inefficient and hence unsustainable spatially. More residents are becoming ever more dependent on private transport, which is becoming increasingly expensive. The majority of the City's residents have no option other than to rely on inadequate public transport which is also becoming more expensive and unsafe.

#### Spatial challenges identified at Metropolitan Scale

Tshwane is a very large and dispersed metropolis featuring numerous challenging characteristics:

- Low density sprawl: Based on an anti-urban ethic of the free-standing house on a plot.
- Fragmentation: the grain of development is coarse, with isolated (introverted) pockets (cells) connected by roads (and freeways), frequently separated by buffers of under-utilised open space or geographical barriers such as steep ridges.
- Separation of functions: land uses, public facilities (urban elements), races, income groups are all separated by great distances.

#### Settlement form

The combined implications of the spatial patterns on the lives of the majority are disastrous:

- Much time-consuming and expensive commuting is necessitated, which aggravates poverty (and inequity) in society;
- City living has become over-dependant on the private car, which the vast majority cannot afford;
- Increasing numbers of private cars results in traffic congestion and increases pollution;
- The nature of roads results in environments which generate few opportunities to which small-scale economic operators can respond;
- The system is inefficient and wasteful of scarce resources, such as land, energy and finance.

#### Future Spatial Development of Tshwane

In order for Tshwane to accommodate the projected population growth and become sustainable within the Gauteng context, densification will have to take place within specific transport orientated corridors.

The future spatial development of Tshwane will focus on the intensification of urban and metropolitan core areas. The growth of Tshwane should be directed inwards towards the urban cores, mixed used activity spines and specialised activity zones.

#### The nature of Public Transport Corridors and their role as Macro Urban Structuring Elements

The development of a mass public transport system such as the IRPTN/Bus Rapid Transit System, Rail and Light Rail can be seen as a tool to achieve either of the following:

- The efficient movement of people around the metropolitan area; or
- The overall restructuring of urban functionality through the employment of an efficient and appropriate public transport system.

The distinction between the two objectives is important from an urban planning perspective. If the objective is merely to move people around in the city, particularly moving them from home to work and vice versa, then the development of a mass public transport system is purely a transportation issue and is primarily concerned with the provision of roads, infrastructure and vehicles.

However, if such a system is to be utilised to improve not only the movement of people, but also to contribute to the improvement of the overall urban functionality an urban image, then the integration between aspects such as transport planning, land-use planning, urban design and urban management becomes vital.

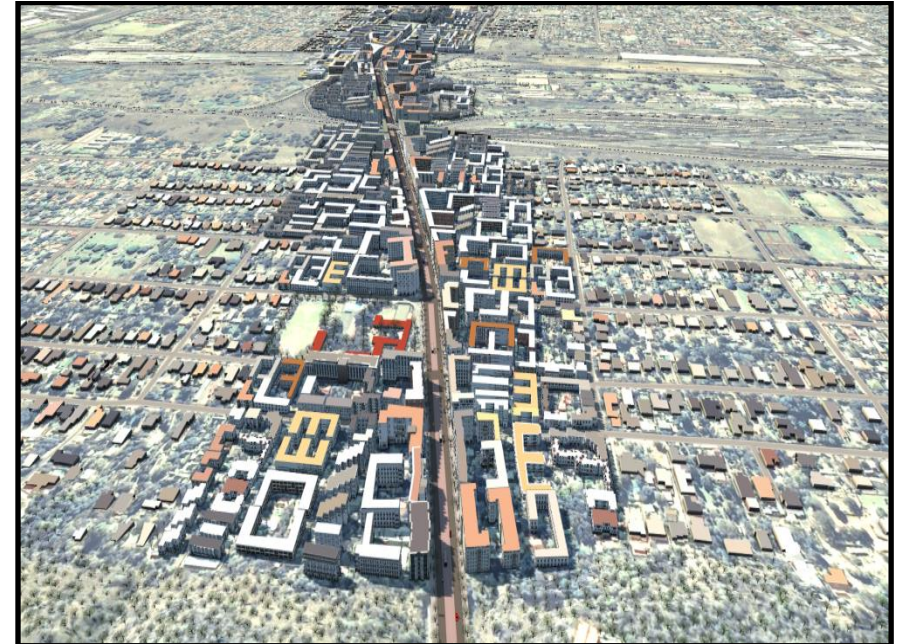
### **Mobility / Transport Corridors**

Within the Tshwane context mobility has to be ensured on the following three levels:

- To and from other parts of the world and South Africa;
- To and from the Gauteng City Region;
- Movement within the Tshwane Metropolitan Area.

One of the primary reasons for the existence of this type of corridor within Tshwane is to move large numbers of people from one point to another in the city and often over relatively long distances.

This corridor will typically move people from the peripheral areas to work opportunities and back during the day. Because of the long distances separating many people from their work opportunities there is a great need to move people around the city during peak hours in the fastest, most cost effective manner with as little stops as possible between the origins and destinations.



### **Activity Corridors**

The integration between land use, economic activity and movement is the key function of this corridor. People do not only move between the two outer points of the corridor but also between various points along the corridor.

A mature activity corridor displays most of the positive aspects associated with activity corridors, such as high residential densities and high non-residential land use intensities.

Such a corridor will be most appropriate in the more central parts where a number of nodes with a certain degree of intensity and mix of uses already exist in relative close proximity to each other.

Within the Tshwane context accessibility has to be ensured on the following three levels:



- To and from other parts of the world and South Africa
- To and from the Gauteng City Region
- Movement within the Tshwane Metropolitan Area

#### 2.4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE IS:

Highways which form the corridors for large scale economic development and connect Tshwane with the rest of Gauteng and the country. These highways include the N1, the R21, the proposed western bypass and Bakwena Platinum (N4) Highway.

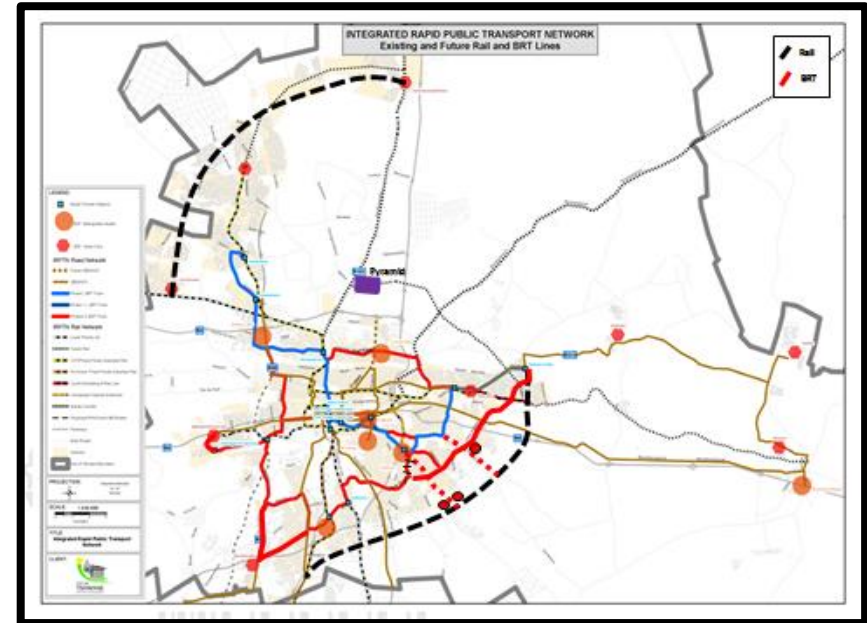
All areas in Tshwane must be well inter-connected by means of a good and efficient public transport system. Two systems are proposed that can serve as the basis of a public transport system, namely rail and the IRPTN/Bus Rapid Transit System.

The existing rail system has great potential of becoming the basis of public transport throughout Tshwane and should therefore form the primary movement system, especially over the longer distances. This system however has current challenges that must be resolved.

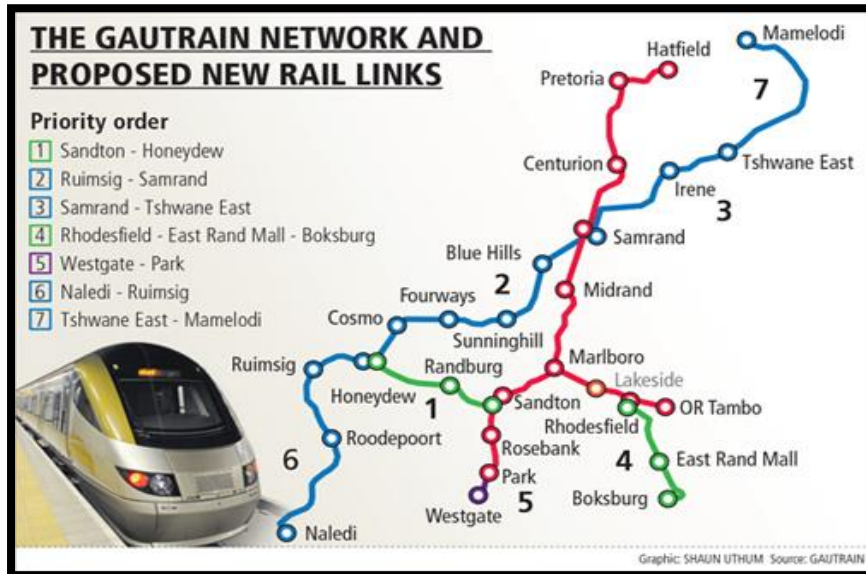
The establishment of an IRPTN/Rapid Bus Transit System is the ideal solution to solve public transport problems over short to medium distances, and will also contribute to connecting metropolitan activity nodes that do not lie on the rail network with each other.

The incomplete concentric road network needs to be developed further to serve the multi-nodal structure of Tshwane.

The Gautrain links Tshwane to Johannesburg and the OR Tambo International Airport by means of a high speed rail link. The areas around the Gautrain Stations provide the potential for urban renewal in and around station precincts. The proposed extensions of the Gautrain to the east of the city are supported and will improve the general movement within the city.



The Gautrain project is primarily aimed at enhancing and supporting economic growth in the Gauteng Province and generating employment. Gautrain is contributing to the urban restructuring of Gauteng. Gautrain station nodes are important as the more people start to stay around stations, the better services are used, less time and money is spent on travelling and a more convenient lifestyle is offered.



Spatially efficient densification policies cannot be implemented without the support of public transport. More residences add more vehicles on roads which are already over capacity. Public transport can be regarded as the tipping point of the success of the city's spatial policies.

Bicycle lanes and pedestrian lanes: Attention must be given to the establishment of separate bicycle lanes and pedestrian walkways to allow for safe movement of cyclists and pedestrians. If the pedestrians and cyclists lanes are provided they will encourage a better transportation which will alleviate traffic problems.

With regards to the movement system, the central concern should be maximising access to regional opportunities. Access has both physical and non-physical dimensions. At a physical level this relates to convenience and at a non-physical level this relates primarily affordability.

Apart from the physical route, there is also the matter of the means by which one will travel along those routes. Tshwane is experiencing high economic growth, a growing middle-class, and increased vehicle ownership that is

causing a surge in traffic volume and congestion. Public transport has not been providing an attractive commuting alternative for those who can afford private travel options.

PRASA is currently undertaking studies into the existing and future demand and capacity of rail-based transport. All planning in this regard will also be informed by financial feasibility. There is an opportunity to create efficiency and close public transport gaps by integrating the BRT network with the Rail network. The BRT offers opportunities for both long and short distance travel. This means that where long-distance rail is not feasible, BRT can be implemented or *vice versa*, specifically in the case of long distance travel.



The integration should be carefully planned in order to ensure sustainability by avoiding competition between the two transport options. Preliminary indications are that there is not enough capacity to support both the Rail and BRT system along the same routes. Further, it is expected that the first phase of the BRT will link the Akasia and Menlyn area to the CBD. The BRT will provide both long and short distance travel options. This scenario negates the necessity for rail along the same route.

The Bus Rapid Transit and Rail should be the backbone of the future Tshwane transport system. The intention is that they become the preferred mode of travel for the majority of residents. In time, the improved public transport system should slowly start overtaking private vehicle usage specifically in nodal areas. This intervention will encourage transport-oriented developments.



Key characteristics of transport-oriented development include:

- A rapid and frequent transit service
- High accessibility to the transit station
- A mix of residential, retail, commercial and community uses
- High-quality public spaces and streets which are pedestrian and cyclist friendly

- Medium to high density development within 800 metres of a transit station
- Reduced rates of private car parking.

This means that developments that cater for, or provide public transport solutions or align themselves along public transport routes will be prioritised. The decrease of private vehicle usage will also promote pedestrianisation of urban areas and an overall decreased carbon footprint. On the reverse side, in order for efficient transport systems to be sustained, a critical mass of users must be achieved. This means that localities that would induce the convergence of large numbers of people would be required. This again, brings us back to the nodal concept of the widest possible range of services within an area and highest residential densities being supported. The higher the rate of usage of the public transport system, the more affordable it will be. At the same time, the convergence of a large number of private vehicles in a locality causes traffic congestion and an avoidance of such an area by those who have alternatives. Removal of private vehicles can effectively improve the quality of an environment.

The City's road, rail and air movement systems will need to be developed to optimise all related opportunities. The rail system should become the backbone of public transport throughout Tshwane and it is therefore an important structuring element of the city. The positions of the urban cores purposefully coincide with major railway stations. The Gautrain stations in Tshwane include Hatfield, Centurion and the Inner City, again creating opportunities for intensification and development. Further expansion to the east will also allow for additional densification opportunities.

The proposed metropolitan vehicular movement system should be designed to support the rail system, i.e. to enable convenient transport of people to and from the railway stations. The rail network which is well developed with only a few missing linkages is not utilized in terms of its potential as a mass transport facility. With the majority of the population dependant on public transport the strategic rethinking of this mode of transport is necessary.





### Livable Streets Concept

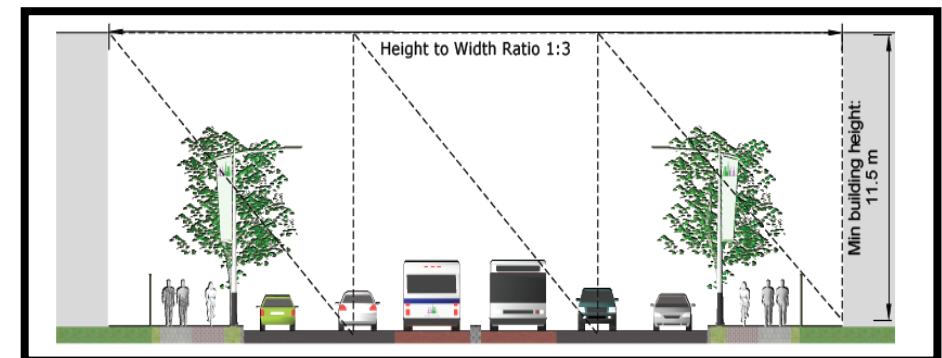
Liveable streets are defined as streets for everyone that are planned, designed and operated to enable a network of safe access for all users, including pedestrians, cyclists and transit riders.

The liveable street concept requires streets to be designed to enable safe, convenient and comfortable travel and access for all users, regardless of their mode of transportation. Complete streets accommodate walking and cycling. Streets are currently designed to only cater for cars; pedestrians are accommodated in the leftover space along narrow sidewalks. No provision is made for other modes of transport and the socialising function of streets is ignored. This is specifically problematic in the inner city where there are large numbers of pedestrians and where the limited space available requires streets to be part of the open-space system.

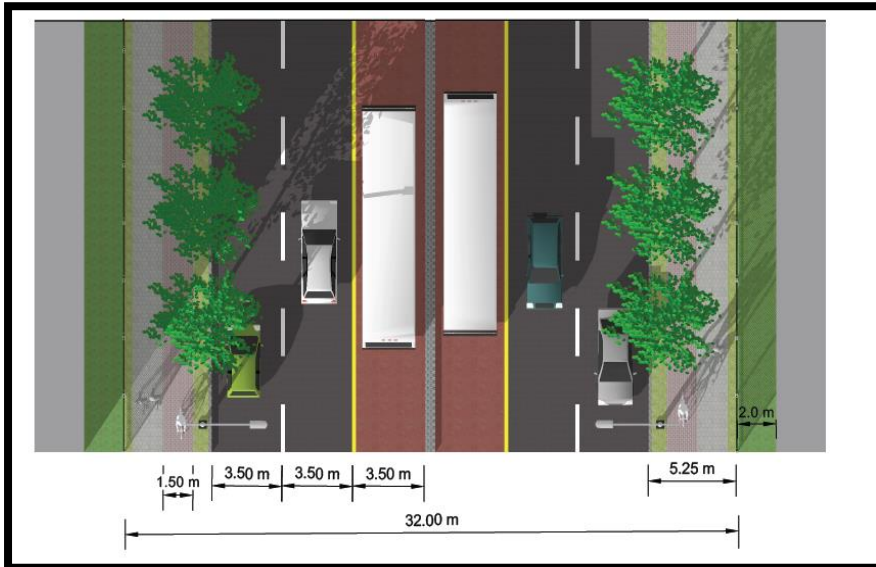
In terms of the complete streets concept vehicle and public transportation users are separated. It also makes provision for the socialising needs of residents and inner city users.

The design principles of complete streets are –

- Traffic-calming measures to lower the speeds of vehicles;
- A road diet to reduce the number of lanes for vehicles and on-street parking;
- Landscaping and streetscaping elements such as trees and benches to create a conducive pedestrian-friendly environment and protect pedestrians from vehicles;
- Wide sidewalks to accommodate comfortable pedestrian movement;
- Widening of sidewalks in some places to allow for socialising spaces;
- Accommodation of cyclists, such as protected or dedicated bicycle lanes; and
- Accommodation of public transport such as the bus rapid transit.



The attached diagrams give a clear indication of how the trunk routes must be developed in cases where 32 m and more than 40 m road reserves are available.



Source: City of Tshwane, City Planning and Development Department

## 2.5 ENVIRONMENTAL STRUCTURING CONCEPT

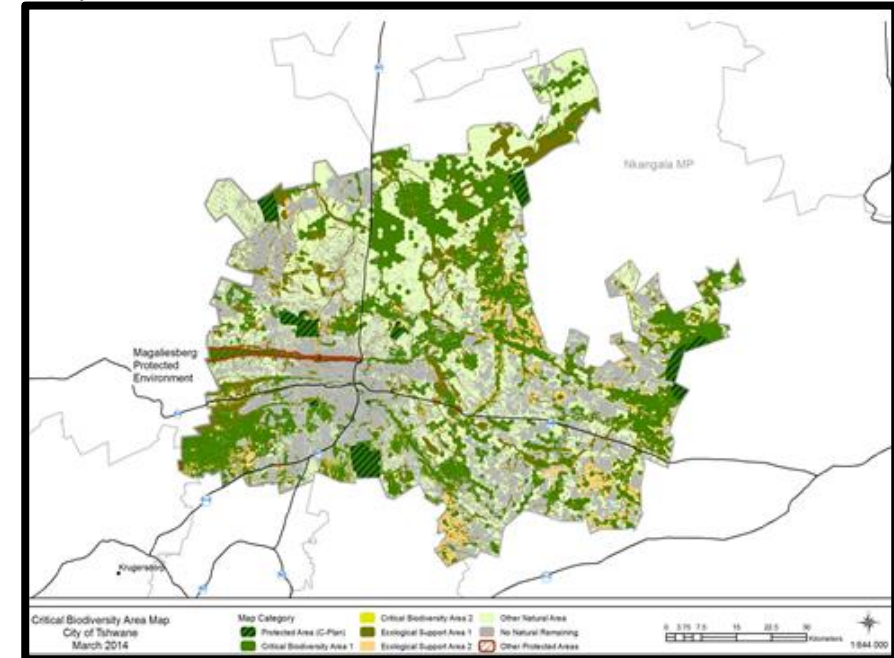
### 2.5.1 HERITAGE AND CULTURAL SITES

Tshwane's urban form and identity is closely linked to the influence of its natural and cultural elements. The developed areas are intimately intertwined with open spaces, creating a city with a unique character. The spatial development of the city should continue to value the role and prominence of the natural environment that sustains and informs the city. The natural structuring elements of Tshwane are those physical features that have to a great extent influenced the historical growth and settlement development pattern and that have an important ecological role to play in the ecological integrity of the metropolitan area.

### 2.5.2 OPEN SPACE AND CONSERVATION AREAS

A well-defined open space network is an important and integral part of the Spatial Development Concept of the MSDF.

The Tshwane Open Space Framework was approved in November 2005. The Framework will need to be reviewed and updated to include the newly incorporated areas of Tshwane.



The development of an open space network is an integral part of shaping the city. Ecological resources are irreplaceable and should thus be one of the major structuring elements guiding the development of the city instead of unplanned urban growth taking precedence and open space becoming merely land that is not desirable for urban development and thus 'left over' space. An important step in shaping urban form is thus the determination of an open space network, which contains natural processes and systems.



The open space network is concerned with the spatial structure of green areas in the urban landscape and with all planning activities that are essential to create conditions for green areas to perform ecological services and to contribute to the quality of urban life. It is thus used to indicate the position of green areas in the urban landscape. As such it has spatial, social and technical dimensions. An open space network is also a planning concept, indicating the intention to develop planning and management tools for the structural role of green areas in the urban fabric and the urban organization.

An open space network contains not only the elements that constitute the open space in itself (vegetation, water, animals, natural materials etc.), but above all how the various open spaces are shaped in relation to the concepts of distribution and organization, to form a system of open spaces. An open space network incorporates a wide variety of open spaces into one system. Open spaces cease to be discreet elements within the city but together form a network in which each component contributes to the whole.

It must be emphasised that an open space network does not focus only on 'green' spaces, but also on more urban or 'brown' spaces as well as spaces that contribute to the place-making of the city.

From a city-planning perspective open spaces have various important functions:

**City structuring:** Historically Tshwane's numerous mountain ranges and ridges, rivers and water courses, and nature reserves and conservation areas have had a lasting impact on the city form and development pattern. Today this impact is still felt, as the Magaliesberg with only a few crossings still forms a barrier between the more prosperous southern suburbs of Tshwane and the less well developed northern suburbs. The scenically beautiful conservancy areas in the south-western part of the city form natural buffers for urban expansion in that direction.

On the other hand these structuring elements do present an opportunity to connect and integrate the various parts of the city, e.g. the Apies River which crosses almost the entire municipal area from south to north.

**City image and identity:** The mountain ranges and ridges, and large conservancy and protected areas in particular, and rivers and water courses to a lesser degree, are responsible for Tshwane's unique African character and identity, which is being best described as 'nature within a city' and 'a city within nature'. There is the positive contrast between the built-up and natural environments everywhere, but nowhere more expressive than at the southern approach to the inner city. This uniqueness must be protected, enhanced and celebrated at all costs in the future.

**Urban expansion:** The large open spaces (ridges, conservancies, protected areas, etc.) contain urban expansion and prevent the city from developing into a monotonous build-up urban 'desert'. Because of the limitations on land availability this will eventually lead to a more compact city with higher densities, guarantying a more sustainable and efficient urban structure for the future.

**Land Uses:** Land-use planning must be done in relation to the open space network where possible, which creates the opportunity to place various urban land uses or developments inside or adjacent to the network. The full potential of the open space network can therefore be exploited for unique projects which otherwise would not be feasible.

Such developments include ecological estates, where the primary focus is the conservation of the natural resource (open space). Conservation in this sense must not be seen as only protecting special or sensitive environments, but conserving open space as a valuable resource itself. The residential development is seen as a mechanism to protect and enhance the open space character and not as an end in itself. Special conditions shall apply in the consideration and approval of such developments, including the following: Dwelling units shall be grouped together in as few clusters as possible; a Strategic Environmental Assessment shall be done to determine the open space, the position of the clusters, the position of ancillary uses, roads; conservation conditions shall be strictly adhered to; conditions shall be set for the design, character and overall relationship with its environment.

Open Spaces thus include the following:

**Conservation Areas:** Areas designated for nature conservation, which may include tourism related facilities and recreational facilities directly related to the main use.

**Recreational and tourism related facilities:** Outdoor and tourism related activities, including hiking trails, hotels, 4x4 trails, wedding venues, conference facilities, curio markets, farm stalls, restaurants, game lodges and resorts with a rural character with due consideration to its impact on the surrounding area and environment. The CoT has tremendous opportunities in the eco-tourism arena. Most of the eco-tourism activities occur along the Roodeplaat Dam which is situated in the north of Cullinan (Zambezi) Road on the farms of Zeekoegat, Leeuwfontein and Roodeplaat Dam. Both Roodeplaat Dam and Bronkhorstspuit Dam are under immense pressure from high income residential enclaves. Increased development pressure could result in serious degradation of the natural areas as limited environmental management guidelines exist. There is also the Dinokeng Blue IQ project. Eco-tourism activities that can be enjoyed include but not limited to the following: game farms, nurseries and bird watching to mention but a few.

### 2.5.3 RURAL MANAGEMENT

#### Introduction

The erstwhile City of Tshwane (previous dispensation) was mostly characterized as an urbanized Metropolitan area with only a smaller sector known and characterized as definite Rural Areas. It is also important to note that parts of these apparently Rural Areas were further earmarked as Future Urban Development. These Future Urban Development Areas were designated in terms of each Regional Spatial Framework for future urban expansion and development.

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order e.i. to protect the Environmental sensitive areas, to manage the buffer areas and

to create opportunities for sustainable development and promote sound land use development in the less sensitive areas.

#### Background

The following source documents were used as building block for the compilation of the revised Rural Component, Rural Management and Rural Development:

- Tshwane Biodiversity Plan. (2016))

All information with regard to the existing Urban Edge, Ridges, Ecological support areas, important areas, Irreplaceable areas, Protected areas, Game Reserves and Nature Reserves were used

- The existing and future provision of essential services

Information with regard to the provision and capacity of Water (Reservoirs), Sanitation (Waste water plant), Roads, Storm water, Electricity, watersheds and flood lines were used to determine the development edge

- The Metsweding Environmental Management Plan
- The "Division" Plan and policy
- The Gauteng Spatial Development Framework 2011.
- The National Planning Commission: National Development Plan 2011: Chapter 6: An Integration and Inclusive Rural Economy.

It must be noted that all these documents were used to inform the revised Rural Component and did not dictate the final product.

#### Demarcation of the Rural Component

In terms of the Gauteng Spatial Development Framework, 2011 the function of determining the Urban Edge has moved to the Local Authorities and is a function that is not part of the Provincial Planning functions.

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

These areas will remain as Future Urban Development as it shall retain a rural character until such time that basic service can be provided. These areas still need to be managed as rural areas with specific guidelines contained in the different RSDF's.

As soon as the areas earmarked as Future Urban Development been serviced, these newly serviced areas will be excluded from the Rural Component and will form part of the urban fabric of the city.

### Vision

The Tshwane Rural Component Vision will promote:

- Promote an effective response to rural poverty.
- Ensure food security by maximizing the use and management of natural and other resources.
- Create vibrant, equitable and sustainable rural communities.
- Contribute towards the redistribution and sustainable use of all potential agricultural land.
- Support rural economies based on agriculture, and where possible by mining, tourism and agro processing.
- To create employment and business opportunities for the existing rural population.
- Aims to prevent natural disasters like erosion and pollution and other detrimental effects on natural resources.
- Formalize residential settlements according to the Rural Component Framework.
- Promote accessibility to community facilities, work opportunities and housing for all
- Maintain of acceptable standard for roads and other mode of transport

- Provide public transport services for the more densely populated rural areas.
- Identify of multipurpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations.
- Address adequate and respectable services must be addressed to improve living conditions.
- Attend to the matter of ownership and tenants' rights must receive attention especially in areas where tribal land ownership exists.

### Guidelines

In the new Tshwane Metropolitan Rural component, the following conditions exists that need to be taken into consideration. Each Region has its own specific rural character and rural composition and detail proposals for the Rural component are therefore dealt with in each Regional context.

Various Rural land use / Rural activity zones are located within the Rural areas and are indicated on the different Rural Component map for each Region. Together with the maps there are tables contained in each of the Regional Spatial Frameworks with restrictive or promotional conditions for every Rural land use/Rural activity zone located in that Region.

The Rural land uses/Rural activity zones for Tshwane Metropolitan area are:

- Development Edge
- Major Rural Roads
- Existing Infrastructure for essential services
- Future Urban areas
- Management zones
- Agricultural areas and
- Agricultural High Potential areas
- Sensitive protected areas. (Combination of C-Plan protected areas), including (Ridges and Streams, Natural resources, Fauna and Flora protected places / areas)
- Heritage and Cultural protected areas

- Tourism potential places / areas
- Human settlements
- Conservancies
- Game and Nature Reserves
- Mines / Places of manufacturing
- Community Service Centres

## Conclusion

The main principle of rural development is to increase accessibility of rural people to basic services in support of survival strategies in the first instance and, in the second, to establish a base from which to start engaging more in productive activities. Given limited resources, the rural component should provide for basics for survival to all existing settlements but make no provision for additional settlement growth. Localities with some economic potential should receive higher levels and a wider range of services/facilities.

The Smart growth principle will further more be strengthened through a well-managed Rural Component and will assist in:

- Discouragement of urban sprawl and contain growth with the city limits
- Compaction of the city through infill and densification
- Improvement of the utilisation of existing infrastructure, services and facilities
- Preservation of the rural environment and landscape
- Protection of agricultural land, especially high potential agricultural land
- Preservation of the environments that promote tourism, recreation and nature conservation
- Urban regeneration by adopting an inward approach
- Protecting cultural and tourism assets.

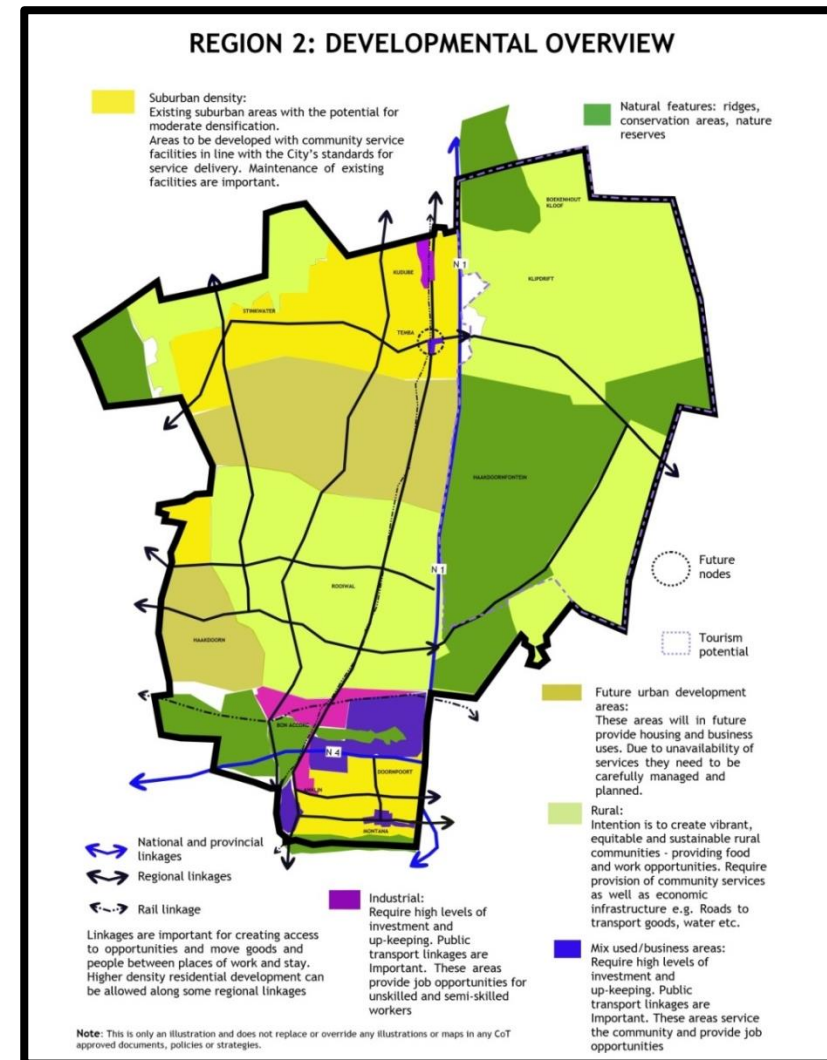
## PART THREE: REGIONAL ANALYSIS

### 3.1 LOCALITY

Region 2 is bordered by the Magaliesberg Mountain range to the south and the PWV 9 freeway to the West. The N1 runs through the middle of the Region.

It is accessible via:

- The N1 freeway which runs north south through Region 2 and links the City of Tshwane with the Limpopo Province in the north and Johannesburg, Bloemfontein and Cape Town towards the south.
- The Platinum Highway (N4/PWV2), which links the region with the North West Province and Rustenburg in the west. This road forms part of the Maputo/ Walvis Bay Corridor.
- The region is therefore accessible from a regional point of view as it is served by both north-south and east-west first order roads linking it to the rest of Gauteng and the broader region.



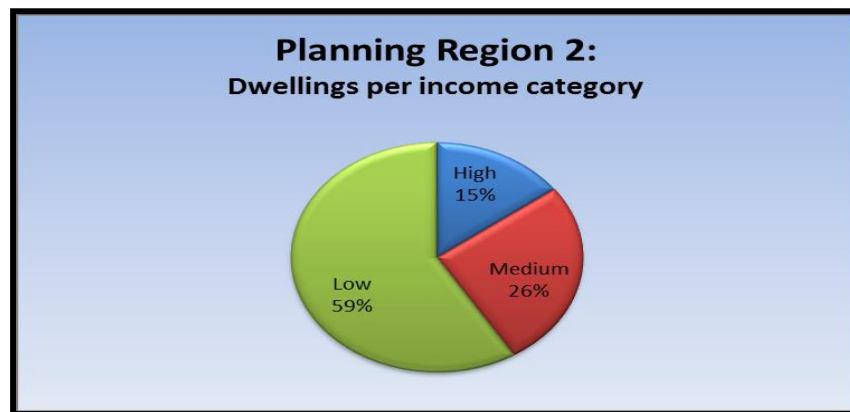
### 3.2 AREA

Region 2 is 1 062km<sup>2</sup> in extent and 12 wards falls within this region.

This is the region with the 3<sup>rd</sup> largest geographical area because of the inclusion of a large rural area.

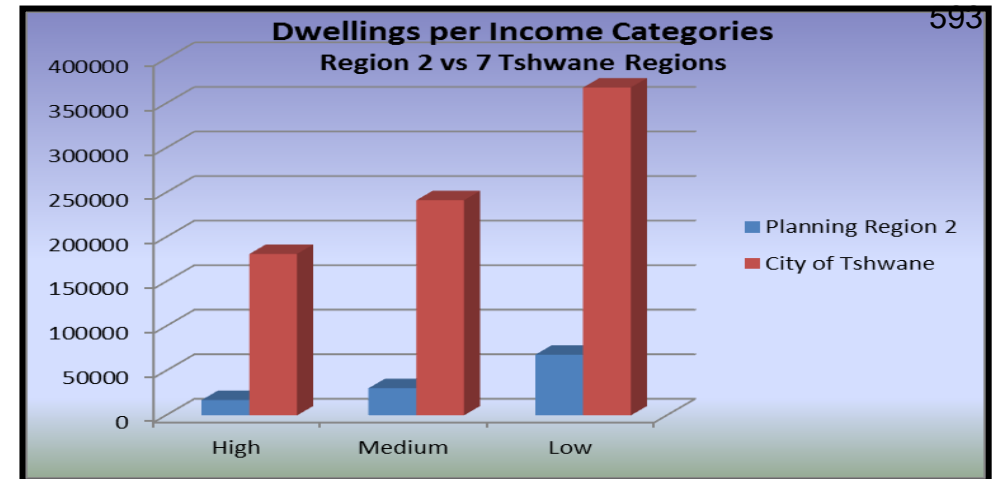
### 3.3 DEMOGRAPHIC INFO

An estimated population figure for this area suggests 369 623 people and 117 882 households, therefore a household size of approximately 3,5 persons. (Stats SA: Census 2011 and IHS Global Insight)

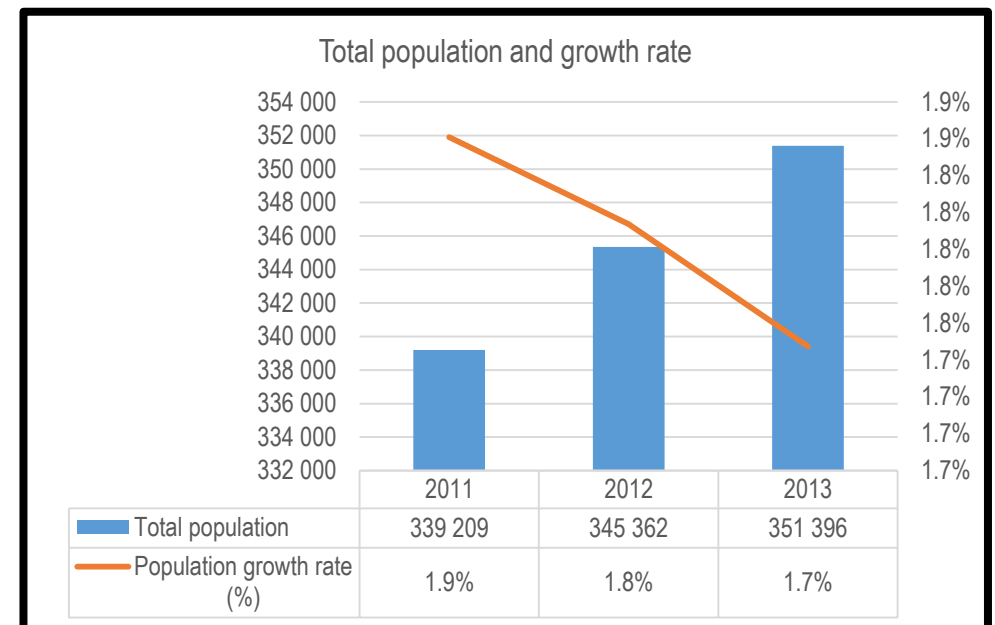


Approximately 33% of the economically active population of Region 2 is unemployed, higher than the national average of 25%.

The number of unemployed for Region 2 is 17% of the total of unemployed (economically active people) of the CoT.



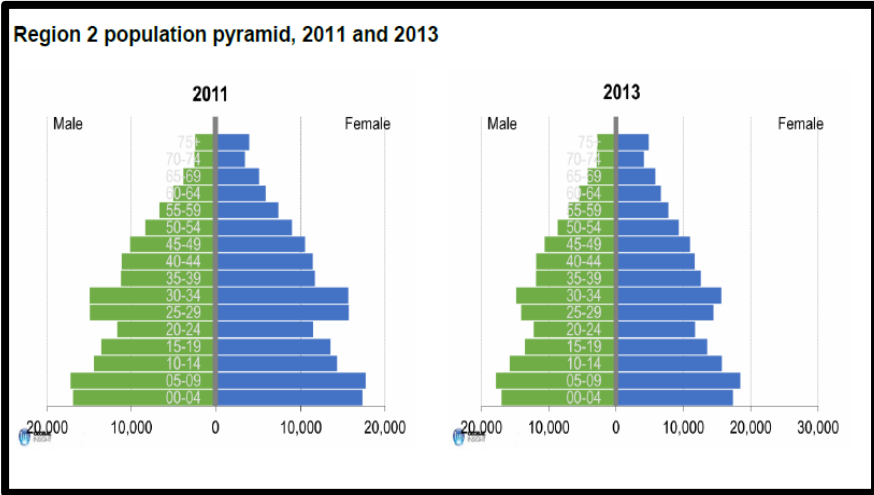
Total population and growth rate, 2011-2013



Source: IHS Global Insight

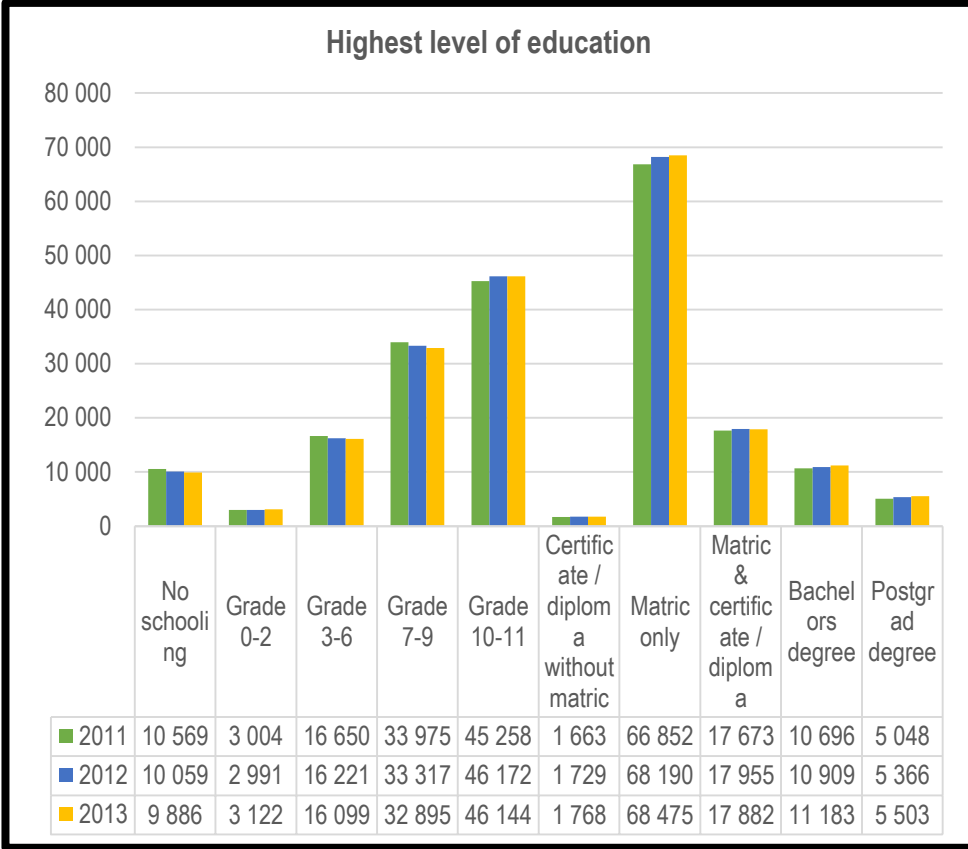


The above graph table indicates the total population and in Region 2 and the associated percentage growth rate since 2011 to 2013. As indicated in the figure, population in Region 2 has been steadily increasing in nominal terms; however, the percentage growth has been subjected to minor volatilities. In 2011, the total population was approximately 339 209 and grew to 351 396 in 2013, representing 4 percent growth over the period. The population growth is growing at declining rate, in 2011 the population growth rate was at 1,9 percent and this has declined to 1,7 percent in 2013.



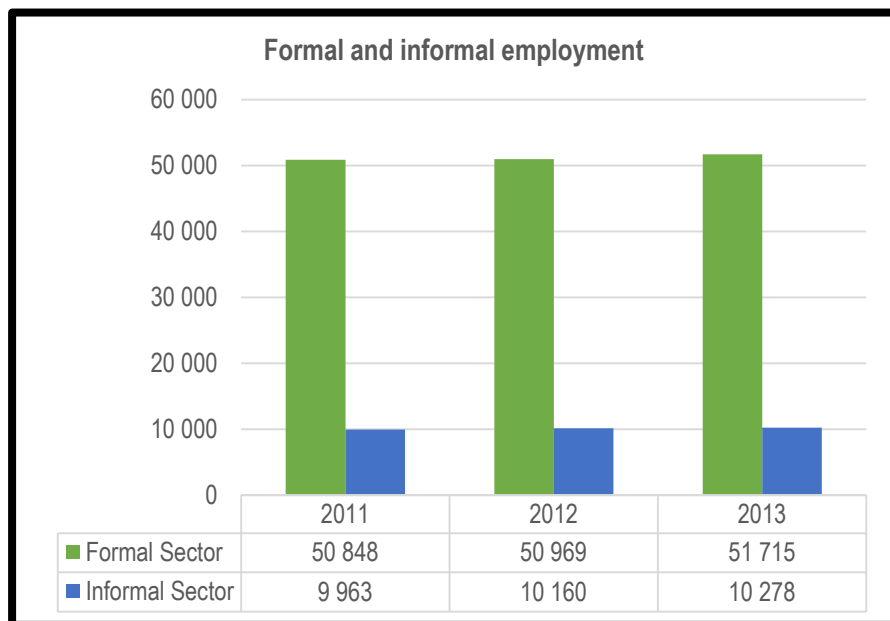
The figure above indicates the 2011 and 2013 population pyramid for Region 2, from the figure, it can be noted that there is a youth bulge in Region '2s population i.e. it can be observed that a significant portion of Region 1's population is younger than 35 (60.4 percent). This is likely due to the large presence of institutions of higher learning in the City, as a result, a large student population.

**Highest level of education attained for Region 2 population aged 20 years +, 2011 -2013** 594



The above graph indicates the highest levels of schooling for the population aged 20 years and older in Region 2. As indicated in the figure, Tshwane has over the years under review i.e. 2011 – 2013, increasingly performed well with respect to education, more so in the accumulation of both matric and post matric qualifications. In 2011, approximately 66 852 individuals aged 20 years or older, had at least a matric qualification, this has since increased to 68 475 individuals in 2013. The number of individuals aged 20 years or older with no schooling have since declined from 10 569 in 2001 to 9 886 in 2013, i.e. a 6 percent improvement.





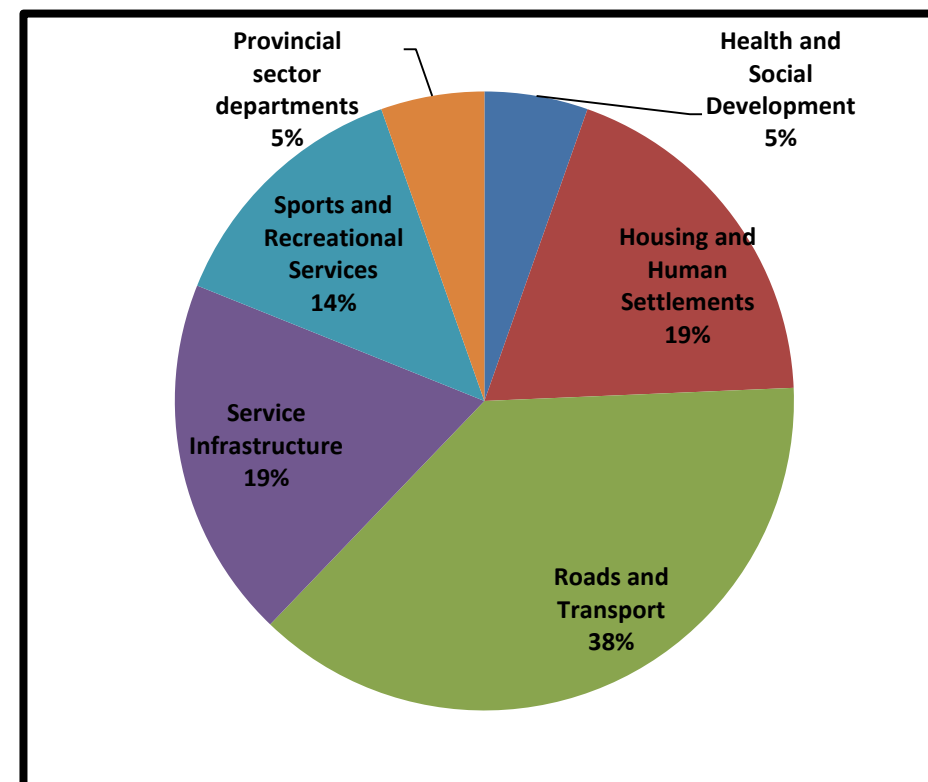
### 3.4 WARD PRIORITIES FOR 2015/16

During the public participation process in preparation for the 2015/16 IDP review; the three top priorities per ward in terms of community needs / service delivery were reconfirmed and compiled.

In summary, the following were the key dominant service delivery areas which were raised in Region 2 during the 2015 review process:

Dominant Service Delivery Areas		
Service Department	Delivery	Community Issue / Concern
Roads and Transport		Traffic calming Road upgrades Pedestrian bridges
Housing and Human Settlement		Provision of RDP houses and formalisation of informal settlements

The service delivery issues which were raised are therefore clustered into relevant City's departments as per the graph below: 595



### 3.5 REGIONAL CHARACTERISTICS

The region presents a diverse character and distinct areas can be identified:

- The urban North, including the urban core area of Hammanskraal (Kudube x4) accommodating low-income persons on relatively small individual erven.
- The central and eastern Agriculture and Conservation Zones (west and east of the N1 highway) primarily undeveloped.

- The Southern Zone including the urban core area around Kolonnade centre and the Zone of Choice, a low density formally developed suburban area.

The northern areas of the region include Hammanskraal, Kudube, Stinkwater, Suurman and Babelegi and are located on the northern periphery of the CoT. The area although urban in character is not integrated with the larger urban environment of the metropolitan area.

The area is characterised by low density settlements, with concentrations of subsidised housing and informal settlements.

Limited economic activities occur and most employment opportunities are in the Inner City, although this area is far from the city centre. The area accommodates the Babelegi industrial area, previously subsidised by government to provide job opportunities. This area has however been seriously affected by the cutting of subsidies and toll road strategy.

Residents are very dependent on public transport. There are crucial gaps in the transportation network, both in terms of road and rail. The area is further characterised by a poor network of social infrastructure, limited retail facilities, limited investment by the private sector and major backlogs in infrastructure provision.

Problems in the area relate to poverty, unemployment, low incomes, and inaccessibility to jobs, services, amenities and housing.

The central and eastern parts of the region has a rural character and low population density, it falls outside the urban edge although it is bordered on three sides by urban development and is experiencing development pressure.

Very limited economic activities occur in the area and it is not well integrated into the urban fabric, with limited accessibility. Although the area is crossed by railway lines there is no commuter service in the area. The Apies River connects this area to the city. The Dinokeng initiative is in operation in the area to the east of the N1. This will contribute to the economic opportunities in the area through the development of tourism and related activities and services.

The southern part of Region 2 is a low density formally developed suburban area, with developed nodes of economic activities. The bulk of economic activity in Region 2 is located here. The area around the Kolonnade shopping centre has specifically emerged as an area of economic opportunity, together with the strong linear development along Sefako Makgatho Drive. The Wonderboom airport is also situated in this area.

The impact of the natural structuring element (Magaliesberg) that restricts north-south movement supports the significance of the east-west linkages and informs a linear development pattern. The tolling of the N1 has a significant impact on the area, especially in view of its already limited north-south access.

There is limited potential for corridor development along the N4/PWV2, especially in areas which are more accessible in terms of off-ramps. This area is identified in terms of the CoT City Strategy as the Zone of Choice.

The zone of choice, running in a broad band to the north of the Magaliesberg, is proposed as a strategic investment focus area to have a positive catalytic effect on development within the northern areas of the CoT. The strategic value of this area lies in its proximity to the Capital Core, existing infrastructure (e.g. N4) and the momentum of existing developments.

The proposed Rainbow Junction is seen as a flagship development in the Zone of Choice, one of the largest developments in the north, expected economic investment in and around the region.

### 3.6 STRUCTURING ELEMENTS

The main structuring elements of the region include:

- The N1 running north-south through the region provides regional accessibility with the rest of the metro and with the country.
- The PWV2 (N4) runs east-west through the region and connects the region with the platinum rich areas of the Northwest Province.
- Steve Biko Road and Paul Kruger Street provides the only other north-south linkage through the mountain which becomes Lavender Road to the north which in turn links the region with the CBD.

- Sefako Makgatho Drive (K14) provides east-west mobility through the centre of the developed parts of the region. The future K8 will provide an important link between the region and the automotive cluster in Rosslyn.
- The railway line running north-south through the region currently carries only long distance passengers, but could be regarded as a resource of the region, and could be upgraded in future to allow for more effective regional public transport.
- The same applies to the railway -line running east west and parallel to the PWV2.
- The Wonderboom Airport is an important structuring element in the Region.

### 3.7 ECONOMIC BASE

The region comprises of various economic base contributing to the economy of the GDP of the city, the province and the country at large. The economic sectors of the region includes retail, mining, research, commercial, logistics and agriculture and all these sectors contribute significantly to the job creation and GDP of the city.

### 3.7 PHYSICAL ENVIRONMENT

#### 3.7.1 NATURAL STRUCTURING ELEMENTS

The environmental features of Region 2 are major form giving elements that determine the surrounding urban structure.

The Region is characterised by the following aspects:

- Significant ridge systems in the southern parts, notably the Magaliesberg, Halls Hills and further north the Pyramid Hill system;
- Significant watercourse systems throughout, most notably the Apies River and Boepens Spruit that flows into the Bon Accord dam and of lesser significance the Montana Spruit, Wonderboom Spruit and Kaalplaasspruit.
- Several dams, that being the Bon Accord, Stinkwater, Temba Beach dams and wetlands at watercourse confluences of the Stinkwater Spruit and Apies River.

- Protected Areas at the Wallmansthal, Onderstepoort- and Wonderboom Nature Reserves.
- Ecologically sensitive areas associated with ridge and watercourse systems;
- Very little information on ecological sensitivities within the (previously) North-West Province areas;
- Very little or no CoT maintenance actions around ridge and watercourse systems in region's northern parts;
- Very little CoT maintenance data on all types of open space resources;
- Very low ratio of developed open space, especially in the northern most extent of the region;
- The absence of any significant regional recreational open space facility;
- Potential Place making opportunities around the Mabopane Highway, N1 and at the proposed Urban and Metropolitan Cores for Kolonnade and Temba/Hammanskraal Station.

#### 3.7.2 STRATEGIC LAND USES

The region includes a few prominent land uses of strategic significance to the local as well as the broader urban environment of Tshwane and even on an international level. These include:

- The Wonderboom Airport and
- Onderstepoort Veterinary Research Institute.
- Onderstepoort Biological Products
- Veterinary Training-University of Pretoria
- Zone of Choice
- Dinokeng / Big Five Reserve
- Tswaing Crater

#### 3.7.3 NODES

The region accommodates a number of important business nodes, such as:

The region accommodates a number of retail nodes, mostly at community level, with the exception of the Kolonnade Shopping Centre.

No major office nodes occur in the region and industrial uses are limited to Babelegi and a small area to the east of the N1 Highway, and Lavender Road to the north where a number of extensive industrial uses occur.

The following table reflects the current sizes of the retail nodes:

Kolonnade,	145 600 m <sup>2</sup>	Builders Warehouse	25 000 m <sup>2</sup>
Sinnoville Pick and Pay	17 179 m <sup>2</sup>	Hammanskraal	10 700 m <sup>2</sup>
Motana Crossing	20 870 m <sup>2</sup>	Montana Value	11 031 m <sup>2</sup>
Montana Traders	4 300 m <sup>2</sup>	Makro	8 000 m <sup>2</sup>
		Jubilee Mall	52 000 m <sup>2</sup>

A super-regional mall of 94 000 m<sup>2</sup> is planned at the Rainbow Junction node.

### 3.7.4 LINEAR ACTIVITY AREAS

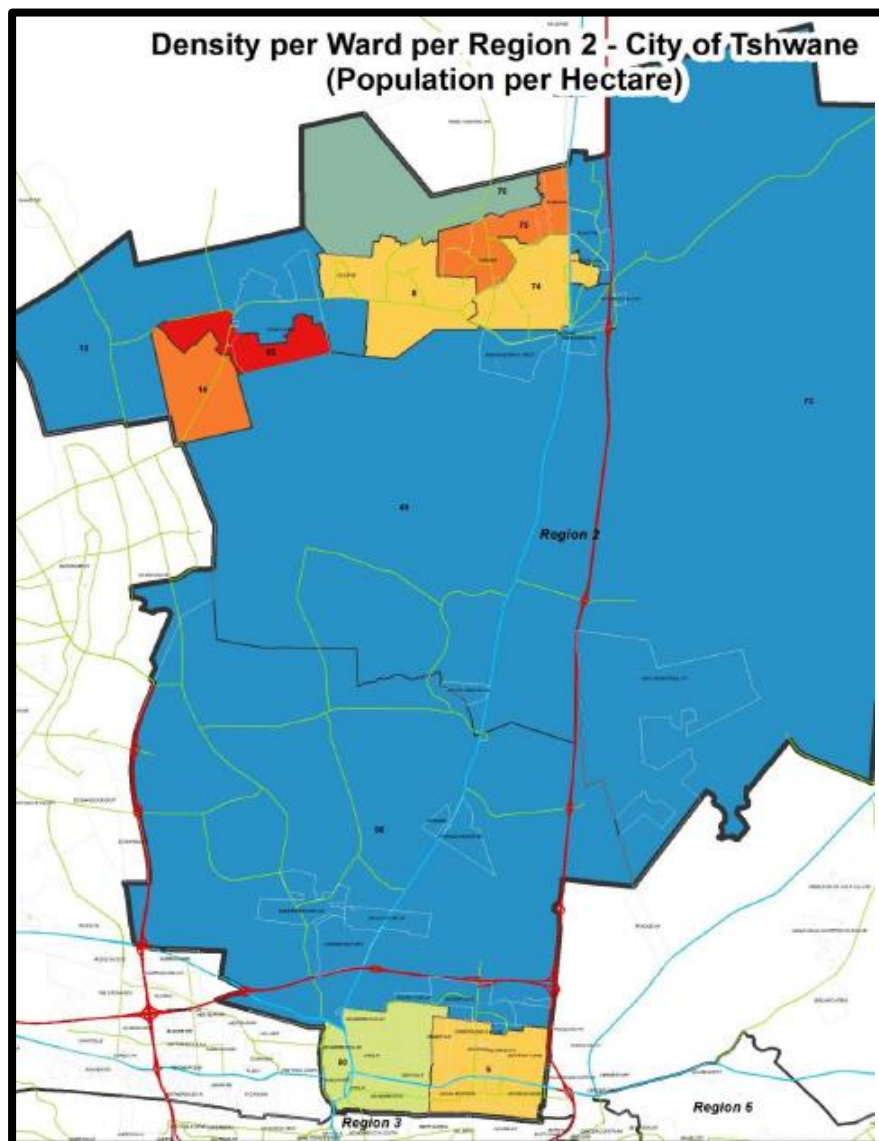
Sefako Makgatho Drive in the southern part of the region connects a number of nodes. Linear development takes place along specific sections. Sefako Makgatho is a mobility as well as activity spine and it is of utmost importance that direct access to adjacent erven be limited as far as possible to maintain the mobility function. This is even more important in view of the status of Zambesi as a future BRT route.

### 3.7.5 RESIDENTIAL

In terms of a city wide perspective the region has the following residential characteristics. (Source: Tshwane Metropolitan Profile and 2001 Census data).

- The region accommodates 17 % of the population of the metropolitan area in mostly single residential units.
- The region has the lowest number of single dwelling houses. It also has a relatively small number of group housing complexes and apartments.
- Housing in the Hamanskraal/Temba area is mostly subsidised or informal.

- Approximately 12 000 houses are located in the southern part of the region.
- There are 18 000 informal units in the region located in the Temba/Hammanskraal area.
- A large part of the southern and central areas of the region is undeveloped, with very low development densities.
- Currently there are numerous applications for township establishment in the southern part of the region (approximately 110) and the region is under pressure for development.
- Population densities throughout the region vary between:
  - 10 persons per hectare around the Kolonnade.
  - 5,2 persons per hectare in the remainder of the southern part of the region.
  - 14,2 persons per hectare at the Hamanskraal/Temba area.

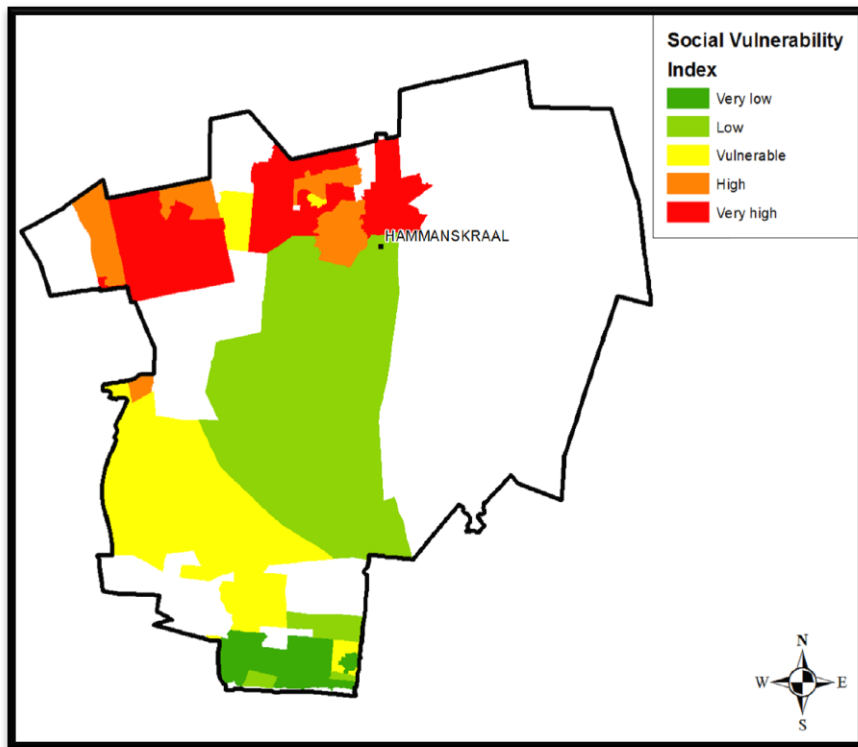


Ward No	Population	Ward Area per Ha	Density per Ha	Total Dwelling Units	Average Household size
5	27439	1738.48	16	9873	2.78
8	29852	1894.25	16	7431	4.02
13	27146	6012.28	5	6739	4.03
14	27034	1205.09	22	6266	4.31
49	35424	21123.16	2	10107	3.50
50	20845	1837.24	11	7341	2.84
73	39614	41833.93	1	9938	3.99
74	24121	1246.22	19	6092	3.96
75	29390	1189.32	25	8221	3.57
76	23615	2892.06	8	5842	4.04
95	24312	842.54	29	5425	4.48
96	30383	24432.98	1	9861	3.08
<b>Total:</b>	<b>339175</b>	<b>106247.54</b>	<b>3</b>	<b>93138</b>	<b>3.64</b>

### 3.7.6 REGION 2 SOCIAL VULNERABILITY INDEX

Region 2 has three main zones, the urban north zone, central and eastern agriculture and conservation zones, and the southern zone (CoT 2055, 2013). The northern parts of the Region 2 were found to have a social vulnerability score indicating very high vulnerability (red shades). Similar to the northern parts of Region 1, this area is characterised by high population densities, mainly informal settlements, high poverty rates, high unemployment and a geographic location within the 50 and 100-year flood lines. The areas of Hammanskraal, Majaneng, Stinkwater, Kudube, Diloppe and Temba are among the highly vulnerable areas in the region. The areas in the centre of Region 2 are vulnerable (yellow shades) to a low vulnerability (lighter green shades). These areas are characterised by low density settlements, with clusters of subsidised housing and informal settlements, and therefore have a very low vulnerability (green shades). The central and eastern parts, being agriculture and conservation areas, will be more affected by a change in climate and temperature.





### 3.7.7 MOVEMENT AND TRANSPORT SYSTEM

#### 3.7.7.1 Road network and private transport

This region is sparsely populated with a concentration of residential development in the extreme north at Hammanskraal and Temba.

The demand for long distance movement (mobility demand at a metropolitan level) in Region 2 is predominantly in a north-south direction to and from the Tshwane CBD.

From a north-south mobility perspective the region is served by the N1 freeway and the R101 (K97), both of which are continuous roads on a regional level.

There are a number of east-west links between the R101 and the N1 which provide access to the N1 but very few east-west links into Region 1.

Existing development is generally well served by Class 4 and 5 networks which provide access to the area at a local level.

#### 3.7.7.2 Public transport

##### *Rail*

There is a rail link between Tshwane and Hammanskraal which is owned and operated by Spoornet. At present there is no commuter rail service operating from this area into Tshwane. A feasibility study into the re-instatement of a commuter service to this area was recently undertaken. Further feasibility studies were recommended.

##### *Road based*

The population is extremely reliant on bus and taxi transport from and to the Hammanskraal and Temba areas due to there being no rail service serving the area.

### 3.7.8 SERVICE INFRASTRUCTURE

According to the Regional Spatial Framework for Hammanskraal and the Northern Cross Border Area of the CoT (2005) there are major backlogs being experienced with regards to services. The northern part of the region is poorly provided with engineering services infrastructure, while the southern part is well provided for.

### 3.8 KEY ISSUES AND S.W.O.T ANALYSIS

In order to determine the key issues and development opportunities for the area a S.W.O.T. analysis for the region was done.

### 3.8.1 STRENGTHS

The region has access to good man-made resources including:

- The N1 and the PWV2 motor ways.
- The railway line to the north of the PWV2 (N4) and to the west.
- The Wonderboom Airport
- High quality residential opportunities with supporting infrastructure.
- The region has ample space for development of residential facilities close to the built-up areas around good infrastructure.
- It also has ample space to accommodate planned development of job-opportunities, close to good regional access routes and rail infrastructure.

### 3.8.2 WEAKNESSES

- Poor internal linkages, especially east/west linkages, and access via the PWV 2 and N1 is limited.
- Limited access through the Magaliesberg.
- Limited job opportunities.

### 3.8.3 OPPORTUNITIES

- The proposed new freight hub.
- Proposed Rainbow Junction.
- Bon Accord Dam.
- Residential expansion opportunities
- Upgrading opportunities of the railway line.
- The N4 presents opportunities for export related activities and possible job creation.
- Food production along the Apies

### 3.8.4 THREATS

- Uncertainty regarding development initiatives, such as the proposed new freight hub and Rainbow Junction.

### 3.8.5 ROLE AND FUNCTION

The metropolitan role and function of the region is to:

- It provides residential opportunities for the total spectrum of the population.
- The area has been defined in the CDS as the Zone of Choice, which is the focus for public-led investment opportunities.
- The Wonderboom Airport and proposed future freight hub could fulfil the need of the City for an international airport.
- The region could fulfil the role of food producer within the metro.
- It accommodates large regional open spaces and therefore could play an important conservation and recreational role.
- As a resource it holds large undeveloped areas, which could in future accommodate growth.

### 3.8.6 DEVELOPMENT TRENDS

In terms of buildings constructed between 2012 and 2015 the most development took place in the Annlin area in the vicinity of the proposed Rainbow Junction. Residential development took place mostly in the Montana area and limited residential developments mostly took place around Sefako Makgatho Drive.

### TRENDS IN NODES

The development of the Jubilee Mall in the Hammanskraal/ Temba district of about 52 000 m<sup>2</sup> provided the area with much needed retail facilities. High density residential also took place in Annlin near to the proposed Rainbow Junction and BRT Line 1 A end point. The next node in Region 2 that is expected to be developed is the Rainbow Junction Node. The Rainbow Junction development will consist of business/ office parks, education/ training facilities, and an automotive node. High density residential development has taken place over the last two years around this node and more such developments are expected in the area over the next few years.



## TRENDS ALONG CORRIDORS

The light industrial uses adjacent to the N1 and to the North of Sefako Makgatho Drive have developed at a steady pace between 2012 and 2015. This trend is expected to continue with development west and east of the N1. Commercial and Industrial development is also expected to take place in the Wonderboom AH, adjacent to the N4. The main densification corridors in Region 2 has seen limited development between 2012 and 2015 due to the fact the Sefako Makgatho Drive will only be developed as a transport corridor in years to come. Investigations are underway regarding the feasibility of a possible light rail corridor along this route. Densification is however expected to continue along this route with the development of the few remaining vacant properties along this corridor.

## TRENDS IN PREVIOUSLY DISADVANTAGED AREAS

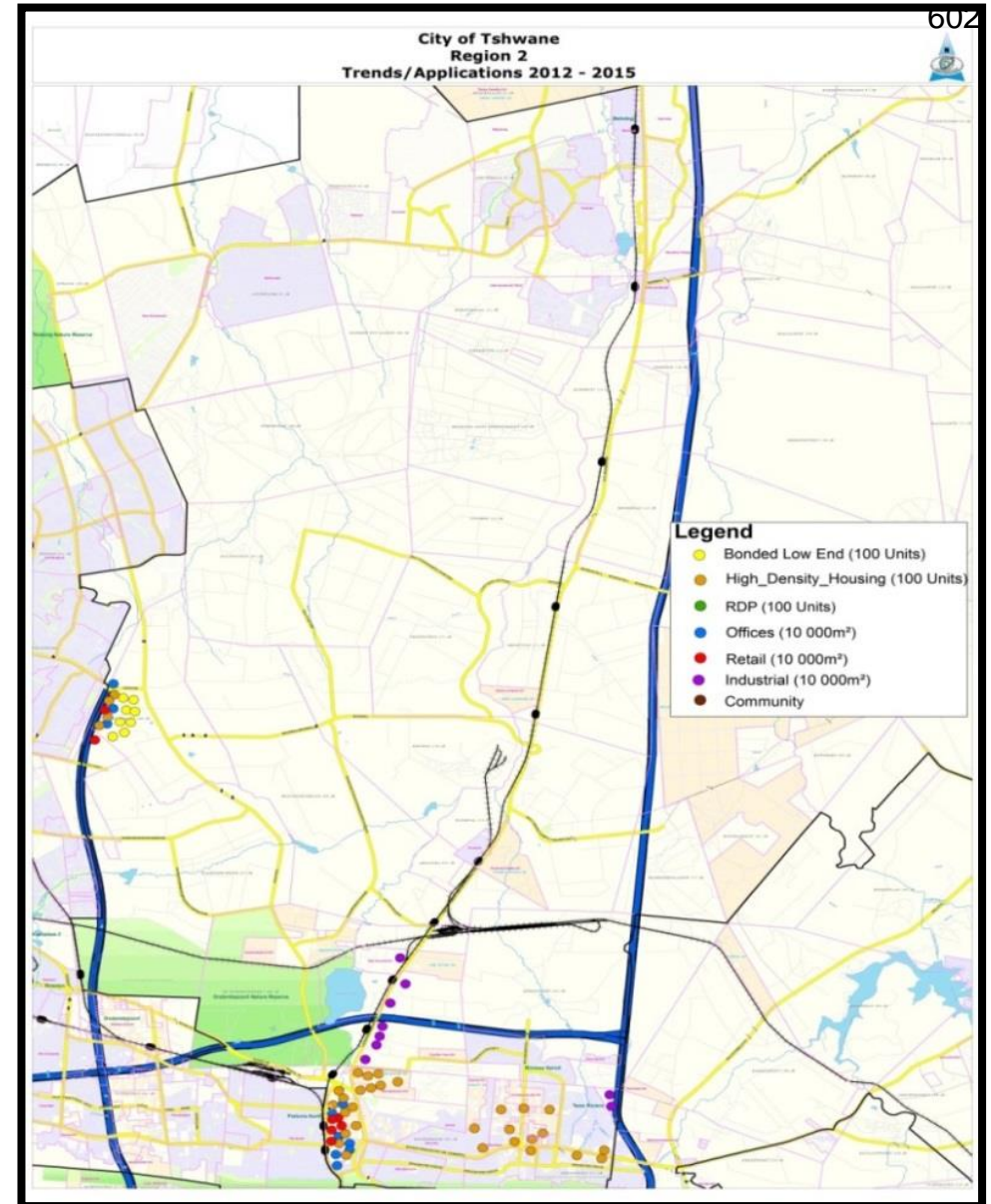
The areas in the far north such as Hammanskraal/ Temba are not expected to see massive housing developments. The existing development is expected to be formalized, if not included into formal townships. The focus will be on the New Eersterust and Hammanskraal West Extensions areas.

## TRENDS IN SUBURBAN AREAS

The existing trends of densification around the Wonderboom airport and Annlin areas are expected to continue. The last remaining vacant properties in the Montana area are expected to be developed over the short term.

## TRENDS IN RELATION TO SPATIAL PLANNING

The future expected developments for Region 2 are in line with the spatial planning of Region 2. Future development will be clustered around the transport corridors and specifically the Rainbow Junction node. It is expected that in the short term the majority of the development in Region 2 will be around this node. These trends are in line with the MSDF and the RSDF of Region 2, which focus development around nodes and corridors.



## PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK

### 4.1 INTRODUCTION

The main development objectives for the region are to fulfil its metropolitan role and functions which have been identified and are represented in a development concept. The main elements of the development concept are to improve linkages; the creation of job opportunities; residential development and agricultural development. The following summarises the proposals:

- Access to the second order road system from the N1 and PWV2.
- Improved east-west linkage to Pretoria North and between the PWV2 and Sefako Makgatho Drive.
- Linkage to the south through the Magaliesberg mountain (K99).
- Improved public transport via the rail system to the Temba/Hammanskraal area.
- The proposed new freight airport could develop into an inland port with associated industries and job opportunities.
- Development of Rainbow Junction together with Bon Accord Dam as a mixed use destination.
- Development of new nodes and the expansion of existing nodes.
- Densification around the nodes and infill to the south of the proposed new freight airport.
- Future urban expansion opportunities between the PWV 9 and the Soutpan Road, south of Hebron Road.
- Conservation and development of agricultural potential in the area between Temba and the railway line north of the PWV 2.

The following section will explain in detail the different components of the Spatial Development Framework as indicated on the map.

### 4.2 METROPOLITAN NODES / TRANSPORT ORIENTATED DEVELOPMENT NODES (TOD)



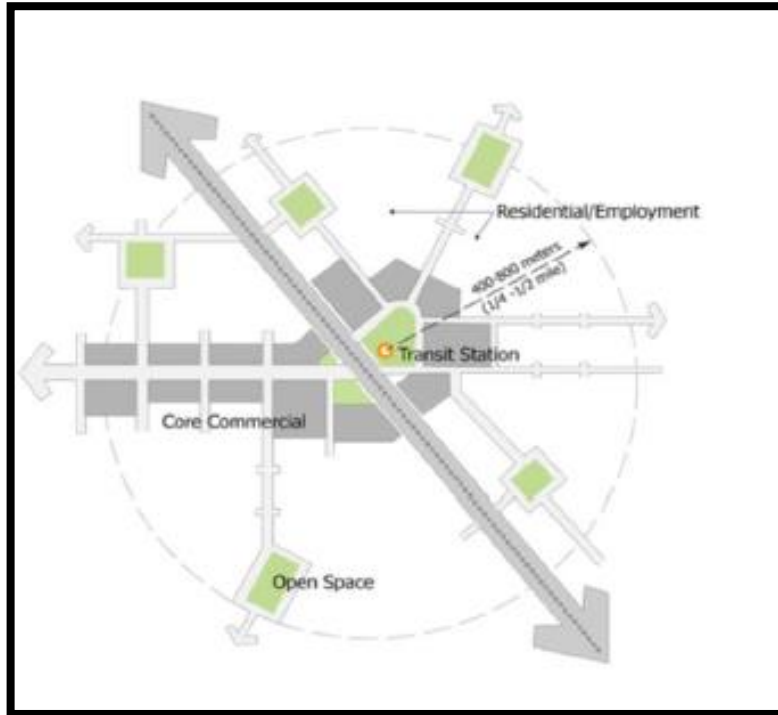
The Metropolitan Spatial Development Framework (MSDF) proposes a number of Metropolitan Cores / Transport Orientated Development and Urban Cores. The Tshwane Retail Strategy is also applicable to these nodal areas of metropolitan importance.

Metropolitan Nodes- these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Transport-orientated development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (train station, metro station, BRT stop or taxi rank), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs are generally located within a radius of 500 to 900 m from a transit stop, as this is considered to be a convenient distance for pedestrians.

In terms of TOD it is important to provide a pedestrian –friendly environment and mixed use areas where the needs of the commuters and residents can be addressed in one place. Small business opportunities must be promoted around the stations and along the trunk route.

It is further important that the mix of land uses around the TOD should generate ridership at different times of the day. (Ideally 24 hours. According to the recent SAPOA publication Developing a Collective Approach to Mixed –use Development in Transit –

Orientated Development Precincts “place to work, to live, to learn, to relax and to shop for daily needs should be located as close to the stop/station as possible. Transit non- supportive uses such as car sales, car washes warehouse, storage and low intensity industrial uses.



The following core areas are highlighted in terms of the MSDF:

## 4.2 METROPOLITAN NODES

The Metropolitan Spatial Framework (MSDF) proposes a number of Metropolitan Cores and Urban Cores. The Tshwane Retail Strategy is also applicable to these nodal areas of metropolitan importance. In Region 2 these activity areas are linked to public transport facilities and represent the environments where high levels of public sector investment are required. The intention is to group economic, social and residential opportunities in mixed-use environments within these core areas.

The following core areas are highlighted in terms of the MSDF:

### 4.2.1 KOLONNADE METROPOLITAN NODE:

The Kolonnade is indicated in the MSDF as a Metropolitan Node and forms part of the multi-nodal structure of the metropolitan area. It functions as a regional node. It may in future even grow to Super Regional status depending on the extent of the residential densification that is proposed for the area surrounding the core area.

### 4.2.2 PRETORIA NORTH / RAINBOW JUNCTION EMERGING NODE

This area consists of a large mixed use area. The focus of development in this node should be on urban renewal and the introduction of higher density residential uses. The area functions as a job opportunity cluster and should be supported through the provision of public transport and support services which includes public transport interchange.

The existing commuter rail network serves this area through Pretoria North Station and Wonderboom Station. In order to accommodate the proposal sufficiently it will be necessary to relocate some of the railway lines at a local level.





The node comprises of motor trade and related uses; businesses, retail, commercial, industries; schools and educational facilities and residential properties. Most prevalent in the node will be businesses, retail and commercial uses.

#### 4.3 REGIONAL NODES / LOCAL NODES



The RSDF indicates a number of nodes (either existing or emerging) which are important on a regional and local level.

The extension of existing, well located nodes should however be encouraged before the creation of new nodes. As in the case of existing nodes, it is proposed that higher density residential uses be introduced as part of the node. It should also include social and community facilities.

Typically community centres and neighbourhood centres should include both commercial and social facilities, such as retail facilities, schools, professional offices and community facilities, where such facilities are absent in the surrounding area.

For these nodes to function properly they should form part of a hierarchy of nodes, directly related to the characteristics of the population it serves.

The hierarchy of retail centres as proposed in terms of the “Retail Strategy” should be applied to the region, subject to need and desirability within the region.

##### 4.3.1 HAMMANSKRAAL URBAN CORE:

The third node is located at Hammanskraal (that includes Jubilee Mall ) and is indicated in the MSDF as an urban core. This node is the focus of private led investment and public led investment in social and community facilities. More detail regarding the node is provided in the Local Spatial Development Framework for the northern area.

##### 4.3.2 TEMBA LOCAL NODE

The Temba node is located to the north-west of the Hammanskraal Node. Large tracts of undeveloped/vacant land surround the few institutional, social, and retail activities. It is a mixed development node of schools, magistrate court and retail uses that caters for the community of Temba and the surrounding areas. The node provides job opportunities as well as business opportunities critical for the development of the area. The node has potential to expand through the agglomeration of economies to foster economic growth and address social ills.

##### 4.3.3 HAMMANSKRAAL WEST LOCAL NODE

The node is strategically situated on the Jubilee Road and D2757 linking Hammanskraal and Sekampaneng and Hanyane Drive to Stinkwater. This local node provides services to the surrounding communities and supports the Hammanskraal Urban Core.



It further, expand the element of choice for the residents of Hammanskraal and the surrounding areas, it also promote choice and competition to foster a balance in the operation of free market. The node is formed by public and private investment; the uses are predominately retail with educational and social services provided by the Jubilee hospital. The node promotes social and economic development by proving job opportunities and investment opportunities for entrepreneurs for the growth and productivity of the node.

#### 4.3.4 STINKWATER LOCAL NODE

This node is about enhancement of local economic development, provision of job opportunities and investment of purchasing power within the area to benefit the community. The structural elements of the area vary from activity spine and activity streets collecting traffic within the area and linking Stinkwater with to Hammanskraal and Soshanguve. Hanyane Drive is an activity street catering for local collector streets and traffic from Hammanskraal. Along Hanyane Drive there is an economic stripe made up shops, offices, churches, filling station etc. The Stinkwater local node serves the local community and the travelers that pass through Hanyane

Drive. The node provides services that vary from basic to secondary as well as public services. The node is strategically located along an activity spine (Hanyane Drive) and it accessible to neighbouring townships and people passing through Hanyane Drive to Soshanguve or North West. It will unlock local economic development and increase the purchasing power of the area which will be injected in the area to foster social and economic and social development of Stinkwater. There is vacant land within the node which will accommodate new development opportunities to strengthen and expand the existing node and address some social ills challenging the community

#### 4.3.5 NEW EERSTERUST LOCAL NODE

The proposed local node is based on the Transit Oriented Development occurring around will be around the train stations in New Eersterust. This node will stimulate mixed use development to foster local economic development suitable for promoting sustainable livelihoods for the community. The railway development will unlock economic activities around the stations and create suitable environment for entrepreneurs to create job opportunities. The local economic activities will increase the purchasing power of the community and it will be invested on their economic cycle to foster growth. The proposed node will be supported by the local threshold as well as the external commuters. The strategic location of the New Eersterust station will trigger the effect of agglomeration economies and optimisation of the identified comparative advantage of the area.

#### 4.3.6 NEW PROPOSED NODE (corner of S Makgatho and Lavender)

A new node (mixed uses) is proposed on the north-eastern corner of Sefako Makgatho Drive and Lavender Road between Alex and Rosemary Streets on condition that no access shall be allowed from Sefako Makgatho Drive. On the east side of the southern half of the portion it is bordered by two business erven (Annlin X 67 ) On the southern side (across the street) it is bordered by a motor dealership. On the south western corner (also across the street) it is also bordered by a motor dealership. This portion is affected by the alignment of the future K97.

The Region had several enquiries the development of this corner and it seems it would be the preferred outcome of residents living in this proposed node.

#### 4.3.7 DILOPYE: PROPOSED FUTURE NODE

The proposed mixed use node is located along Molefe Makinta HW (M21) south of Molefe Makinta HW, east of Stinkwater and West of Hammanskraal West and it is boarded by the extension of the proposed Suurman Road and proposed extension of Diloppe Road. This node will serve the community of Stinkwater, Diloppe, Sekampaneng and other surrounding areas. There are proposed mixed uses townships around which will support and foster the optimal functionality of the proposed node. Furthermore south of the proposed node there is a proposed rail way line with two rail way stations which will in future trigger Transit oriented development which will integrate with the said node.

#### RETAIL STRATEGY

The Tshwane Retail Strategy is applicable to these nodal developments. The following tables provide a better overview of the retail aspects of the nodal developments.

For these nodes to function properly they should form part of a hierarchy of nodes, directly related to the characteristics of the population it serves.

The hierarchy of retail centers as proposed in terms of the “Retail Strategy” should be applied to the region, subject to need and desirability within the region.

#### Summary of strategy

**Renewal Strategy:** In many instances retail facilities have become outdated, the increase in passing traffic has created a problem and in many instances parking facilities are inadequate. The revitalisation, upgrading and improvement of these areas should be encouraged.

Once a particular location or structure is no longer viable for retail purposes it is recommended that the structure be demolished or converted for other uses. This strategy will be driven by the decrease in return on investment in a particular area, large vacancies and the reluctance of retailers to move into a particular area. Urban decay, poor locations and unsafe areas will be the main problems to deal with. This should also form part of a broader revitalisation strategy for areas experiencing urban decay.

A renewal or upgrade strategy should also be followed by shopping centre owners. In most cases shopping centres are in need of a minor upgrade/major maintenance overhaul at intervals of 5 to 7 years.

**Maintenance strategy:** In certain cases shopping centres have become outdated and routine maintenance no longer effective and the upgrading or the redevelopment of the centre imperative. A maintenance strategy will mainly be applicable in already built up areas.

**Expansion strategy:** The change and growth in consumer demand in a particular area as well as new retail trends will ‘force’ landlords to expand their existing retail facilities or to include new retail types. This is especially applicable in the case of regional and super regional centres, but can also be relevant for existing business clusters.

Most regional centres continuously expand to make provision for internal growth and to accommodate new retail concepts or trends. Cognisance should be taken of this particular need. This growth will mainly be driven



by the already proven success of a particular centre, its location and the needs of the market.

**Infill strategy:** In this instance reference is made to infill in already built up residential areas where retail has been lacking or undersupplied. This type of development will then capitalise on an existing market and will prevent major outflows from a particular area to other shopping destinations.

The most important infill gaps currently exist in the traditionally African urban areas, although it is not necessarily restricted to these areas. There is currently major interest in the development of shopping centres in these areas, and development in these areas should be encouraged. The developments range from small neighbourhood to regional (large community) centres.

It is important to note that once the area is sufficiently serviced, the Infill Strategy must be replaced by the Maintenance and Expansion Strategies, and where new growth occurs, the Follow-the-roofs strategy.

**'Follow-the roofs'/ new growth areas strategy:** This strategy focuses on new growth areas and the provision of retail facilities once a certain threshold level of houses and disposable income is reached.

In the case of a 'follow the roofs' strategy, timing is of critical importance. Should a centre be built too soon the retail performance will be low and casualties, especially amongst the smaller tenants, will be high. Further growth in an area should also be such that the trade area of the proposed centre will fill up sooner rather than later.

**Nodal strategy:** Nodal or urban core strategy is applicable where larger retail facilities will create agglomeration advantages for complementary retail facilities. Metropolitan nodes and urban cores are those nodes or urban centres that fulfil a city wide function. These nodes are not stagnant and will expand over time. It is important that these agglomeration nodal developments take place in close proximity of small to super regional centres. Different types of retail facilities are on offer and not all can be accommodated in a traditional shopping centre. The best locational advantages of these complementary retail facilities are in close proximity

to the existing regional centres. Other types of retail nodes where agglomeration benefits could be created could also be established.

The agglomeration effect is created by the catalytic nature of regional centres. The node will grow to include a variety of facilities and to reach a stage where the required tenant mix reaches the necessary critical mass.

**Modal interchange strategy:** This type of facility depends mainly on the nature of the commuters, the area as well as the different transport modes used.

Land uses in these areas should be focussed on transport orientated developments, with retail focussing on convenience and day-to-day goods.

Higher density areas will therefore have a higher frequency of nodes in a smaller geographical area. The ideal location of such nodes will have to be determined through retail studies taking into account all factors that could have a significant impact on the success of such a node.

To ensure that prospective applicants who intend developing retail facilities sufficiently address all aspects in their applications and are thoroughly briefed on all the requirements of the Municipality with regard to such developments, a pre-application consultation should be followed, where the following aspects will be addressed:

- Locational Requirements
- Urban Design
- Pedestrian movements (walkability)
- Parking requirements and layout
- Taxi ranks and public transport facilities
- Informal Trade
- Site development plans
- Retail and traffic impact studies.
- Impact on surrounding land uses
- A feasibility study will be required for retail developments larger than Square metres

A feasibility study will be required for retail developments of greater than 4000 square metres.



## 4.4 JOB OPPORTUNITY / MIXED USE AREAS

The introduction of land uses that will create job opportunities in the Region 2 was one of the primary development objectives of the CDS and Zone of Choice and is confirmed in this framework. Job creation in this region is entrenched in the CDS in which the “Zone of Choice” was demarcated including the entire area to south of the PWV2. (N4) The development directives of the Zone of Choice are accepted for this framework and should be read together with the strategic documents.

Over and above the nodes discussed in the preceding paragraphs, the following job opportunity focus areas are recognised:

### 4.4.1 INDUSTRIAL / MIXED USE AREAS

#### 4.4.1.1 New Proposed Tshwane Freight Hub

The development of a new proposed freight hub to this area will be a major catalyst in achieving this objective. Major supporting transport infrastructure including the PWV 2, N1 and railway line are in place and only internal transport and service infrastructure will be required in support of the development. A detail development framework should be prepared for the new hub area, incorporating the industrial area, the associated node, high-density residential areas and any other supporting land uses, including an inland port.

A section of the PWV 2 metropolitan development corridor is included in this area and appropriate land uses should be identified in the compilation of a precinct plan for the strategic area.

#### 4.4.1.2 Bon Accord Area

The locality of a dam is unique in this area and presents opportunities for urban development. The development around the dam can include mixed uses linking it through to the Rainbow Junction area.

#### 4.4.1.3 Onderstepoort

The Onderstepoort Complex is already an area of job opportunities and should be supported and encouraged through the provision of proper supporting services. The area south of the PWV2 and north of the railway line is proposed as a mixed use area including light industrial, high tech industrial, warehouses and residential infill development. This area should link Bon Accord Dam to Rainbow Junction.

#### 4.4.1.4 Lavender Road

The existing light industrial ribbon that has developed along Lavender Road is recognised in the framework as an area with job opportunities, but should be restricted to the area located along Lavender Road up to the proposed K97 link with lavender Road.

#### 4.4.1.5 Derdepoort Area

The area located at the intersection of the N1 Highway with Sefako Makgatho Drive has responded to the good locational advantages of the area and numerous light industrial uses have developed in this area. It is proposed that light industrial uses be permitted in this area to the south of the old Tshwane border and east of Breed Street up to the Old Molotto Road and R 573 (Moloto Road). The industrial uses should be permitted in this area subject to site development plans illustrating measures to mitigate possible negative impact on surrounding land uses.

## 4.5 FUNCTIONAL ROAD CLASSIFICATION AND ACTIVITY MATRIX

The movement system in an urban environment is literally the arteries of the city – without these linkages there can be no economy, no inter-relatedness, and no “life”.

Movement systems can be used to create access, structure settlements, and promote integration, diversity and mixed land use. Movement (flows of people, finance, goods) defines the energy networks of settlements. Accordingly, more continuous lines of movement represent planes of greater accessibility and, therefore, become the more desirable connection

for intensive use. Significantly, the energy potential contained in lines of movement is released through stopping, not through movement. Different movement modes have varied patterns of stopping. Accordingly, they establish different rhythms of accessibility and the co-ordination of different modes enables certain points to be strongly reinforced.

By creating a complex and diverse pattern of accessibility, all activities, both large and small, can naturally find a place within the structural system, depending on their need for accessibility and their ability to pay for it. Movement systems, therefore, provide a powerful planning mechanism to bring about mixed, but broadly predictable, patterns of activity, provided activities are allowed to respond to them. Existing and future mass transport routes should also be integrated into this urban system.

The movement system is an enabling feature of a city as it enables the free movement of goods and services through a region. Development trends are directly influenced by accessibility and therefore strategic planning with regard to movement is of utmost importance in the context of a growing metropolitan centre. Land use changes for the consolidation of erven adjacent to existing nodes in residential areas will be considered on merit. Erven adjacent to roads that link such nodes with mobility or activity function within a residential area may be considered on merit. The merit will be evaluated in terms of the guidelines as set out in this chapter.

However, development along more sections of the spines should only be permitted subject to suitable access which would normally mean from internal roads. Development along the spines should only be permitted subject to access management strategies to protect the mobility function of these roads.

**Transport Corridors** - For the purpose of this RSDF these routes are defined as the approved BRT routes within Region 2. They are regarded as the main public transport channels of the region, focusing on the prioritising of public transport and Non – Motorised Transport over Private transport. A pedestrian/cyclist orientated environment with appropriate traffic calming for cars and densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.

The development concept is illustrated through the following diagram and includes the following main proposals:

The PWV 9 highway located on the western boundary of Region 2 acts as the main north-south mobility route for the City. The N4 provides the important east-west link in terms of mobility. The tolls on the N4 within the CoT boundary not only inhibit intra-metropolitan movement along the highway as it becomes a costly exercise for road users but also places a huge burden on the R101 (Bela Bela) Road.

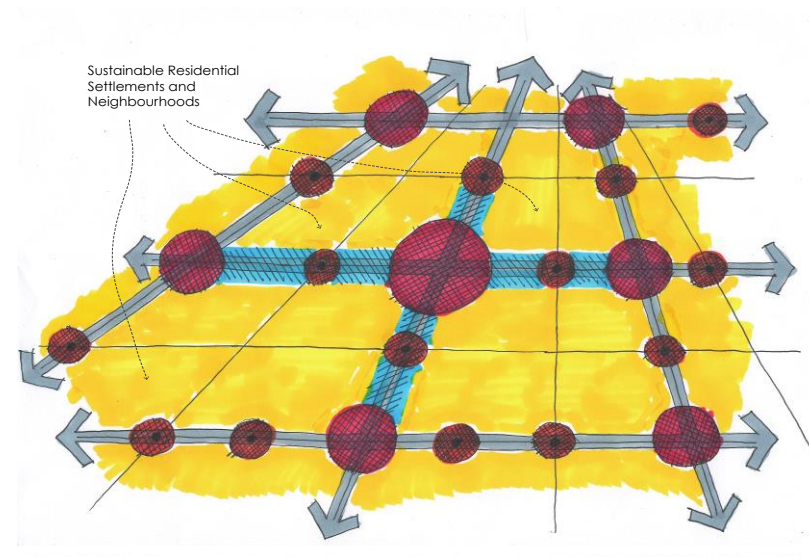
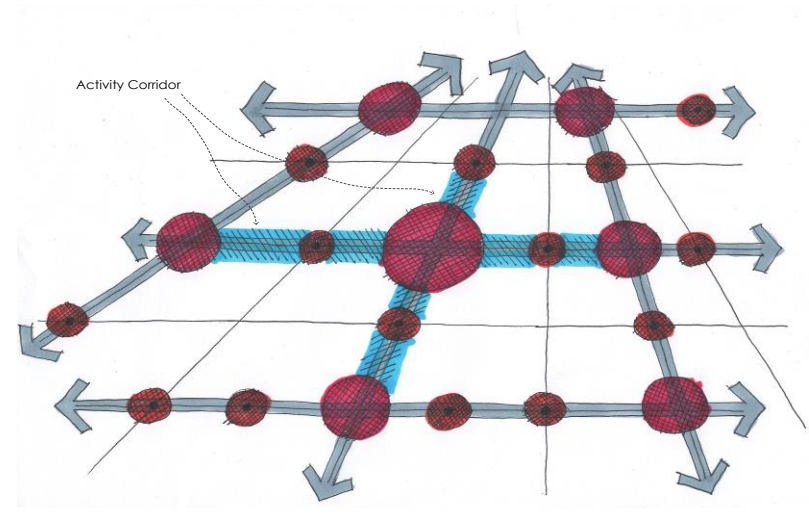
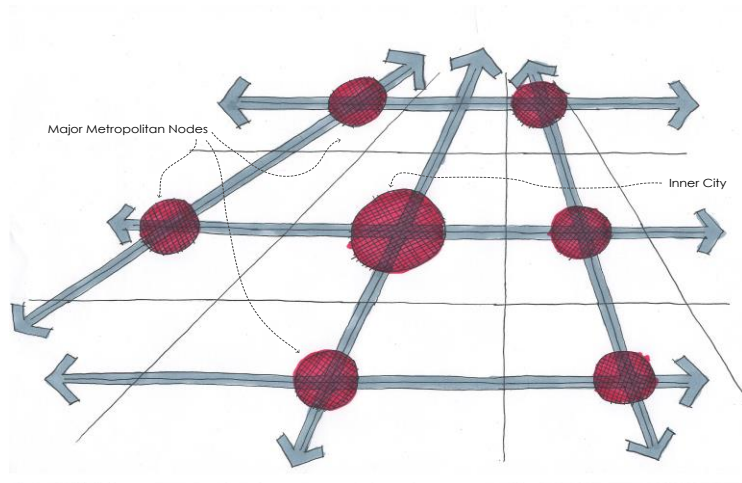
Small scale economic activity occurs in a linear fashion along most of these roads and in the interest of job creation in these poverty-stricken areas it is proposed that the trend be supported from a planning perspective. The residential compatibility of these uses should be monitored to ensure improved living conditions in these northern areas. Nodal concentration however should be encouraged when larger scale uses are considered. However, development along more sections of the spines should only be permitted subject to suitable access which would normally mean from internal roads.

Land use changes for the consolidation of erven adjacent to existing nodes in residential areas will be considered of development guidelines as indicated in this section. Erven adjacent to roads that link such nodes with mobility or activity function within a residential area may be considered on merit. The merit will be evaluated in terms of the guidelines as set out in this chapter. The N1 highway that runs through the region acts as the main north-south mobility route for the City, the Gauteng Province and the country thus experiencing immense volumes of traffic both passenger and freight.


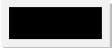

The tolls on the N1 within the CoT boundary not only inhibit intra-metropolitan movement along the highway as it becomes a costly exercise for road users but also places a huge burden on the R101 Road and Sefako Makgatho Drive due to traffic using these routes to avoid the toll gates on the N1 and N4 highways. The Bela Bela road (R101) also functions as a strong north-south mobility spine and there are no plans to upgrade this road in the foreseeable future. With the increase in development along Sefako Makgatho Drive, it must be stated that the CoT will work to retain the mobility function of Sefako Makgatho Drive. The



proposed K8/Third Road link will form a good east-west link situated between the N4 highway and Sefako Makgatho Drive.

### Spatial Concepts for Nodes and Corridors






- The interrelationship between a proposed functional road classification and an activity matrix is illustrated by the following table below

Functional Road Classification	Land Use	Function and Design	Roads and Streets
<b>Highways</b> 	<ul style="list-style-type: none"> <li>No Direct Access to land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Accommodate mainly national, regional and longer distance metropolitan trips.</li> <li>No traffic lights on these roads</li> <li>Access is restricted to the interchanges only.</li> </ul>	<ul style="list-style-type: none"> <li>N1</li> <li>N4 (PWV2)</li> <li>PWV 9 / R80 (Mabopane Freeway),</li> <li>Proposed PWV 9 (Western Bypass)</li> </ul>
<b>Transport Corridors (Class II and III)</b> 	<ul style="list-style-type: none"> <li>Mixed land uses at BRT stations.</li> <li>Mixed uses along sections of trunk route. Mixed uses to front onto trunk route.</li> <li>High density residential along corridor</li> <li>Nodal development with a mixed use character (developments concentrated at intersections and around BRT stations)</li> </ul>	<ul style="list-style-type: none"> <li>Public –transport orientated – with the prioritising of public transport and Non – Motorised Transport over Private transport.</li> <li>Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate.</li> <li>Road space reallocation aiming to re-balance provision between private cars and more sustainable modes such as no motorised transport and the BRT.</li> <li>Limited accommodation for private cars on the Corridor.</li> <li>High accessibility for pedestrians.</li> </ul>	<ul style="list-style-type: none"> <li>In the future Sefako Makgatho Drive (K14)</li> </ul>
<b>Mobility Spine (Class II and III)</b>  A Mobility Spine is an arterial along which through traffic flows with minimum interruption (optimal mobility). Much smaller than highways, Mobility Spines are	<ul style="list-style-type: none"> <li>Nodal Development at intersections.</li> <li>Mixed land uses at intersections.</li> </ul>	<ul style="list-style-type: none"> <li>Little (exception) or no direct access to land uses adjoining the spine. Access is usually through side roads and service roads.</li> <li>Involves inter-metropolitan and inter-regional routes</li> <li>No on street parking permitted</li> <li>Very few traffic lights</li> <li>Restricted pedestrian movement</li> </ul>	<ul style="list-style-type: none"> <li>Sefako Makgatho Drive (K14)</li> <li>Bela Bela Road (R101) Lavender Road</li> <li>Soutpan Road (K95)</li> <li>K224</li> <li>Hebron Road</li> <li>Third Road</li> </ul>

Functional Road Classification	Land Use	Function and Design	Roads and Streets
usually made of two lanes of opposite vehicle flow.  It serves the purpose of inter-regional and metropolitan movement.			
<b>Mobility Roads</b>  <b>(Class III and IV)</b>  Primarily serves intra-metropolitan traffic. While this route is characterised by through traffic, trends indicate pockets of mixed use developments locate alongside.  It serves as the most important linkages between the Metropolitan Activity Areas (Capital Core/Metropolitan Cores/Urban Cores/Specialised Activity Areas)	<ul style="list-style-type: none"> <li>• Medium to high density residential as per density map</li> <li>• Nodal development with a mixed use character</li> </ul>	<ul style="list-style-type: none"> <li>• Limited direct access permitted (not frequent)</li> <li>• Services roads to enhance access opportunities</li> <li>• On street parking also permitted close to major intersections and in the vicinity of significant nodes only</li> <li>• Plays a collector and distributor function though trips are of a short distance</li> <li>• Pedestrian movement along the route in various parts</li> <li>• Public transport very important along Mobility Roads</li> <li>• Provide public transport facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Dr Swanepoel (K99)</li> <li>• Lavender</li> <li>• Wallmansthal road (between N1 and Old Warmbaths Road)</li> <li>• Murrayhill Road (between N1 and the R101).</li> </ul>
<b>Activity Spine</b>  <b>(Class III and IV)</b>  These streets are characterised by slower moving traffic due to the nature of activity along the street (activity is of paramount importance, mobility is compromised to allow the activity). The street provides a focus for various non-residential and medium to higher density residential developments that create a vibrancy and specific identity.	<ul style="list-style-type: none"> <li>• Mixed uses along the spine</li> <li>• Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>• Urban design guidelines important to guide the development along the spine.</li> </ul>	<ul style="list-style-type: none"> <li>• Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate</li> <li>• High accessibility to land and normally only gaining access from a service road.</li> <li>• Mixed land uses along service roads</li> <li>• High density development with mixed uses must be promoted in suitable locations along these routes.</li> <li>• On-street parking where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>• Old Warmbaths Road (R101) from Hammanskraal Township to Babelegi Industrial township.</li> <li>• P62/2</li> <li>• Hammanskraal Road between N1 and R101.</li> <li>• K207 between K224 and Boschplaats</li> <li>• Suurman Road</li> </ul>



Functional Road Classification	Land Use	Function and Design	Roads and Streets
<b>Activity Street</b>  <b>(Class IV and V)</b> Local collector road within suburb, characterised by small scale (in keeping with the existing character of surrounding residential developments) local economic activities and social amenities	<ul style="list-style-type: none"> <li>• Low-intensity mixed land uses with a focus on community services and economic opportunities</li> <li>• Low to medium density residential developments</li> <li>• Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>• Urban design guidelines important to guide the development along the street.</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (60km/h and less)</li> <li>• Mixed land uses along service roads</li> <li>• Must be provision for pavements</li> <li>• Parking on site</li> <li>• These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>• Braam Pretorius (Parts and sections of)</li> <li>• Sefako Makgatho Drive between Vinko and Aldo Street</li> <li>• Breedts Street</li> <li>• Local collector in Kudube/Temba</li> <li>• Ngifundise (Between Hanyisa and Mosimegi)</li> <li>• Mosimegi (Between Ngifundise and Hanyisa)</li> <li>• Hanyisa</li> <li>• Juba</li> </ul>
<b>Residential collector</b>  <b>(Class IV a and b)</b> Local collector road within suburb, characterised by small scale social amenities	<ul style="list-style-type: none"> <li>• Low-intensity community services and as per Council consent</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (50km/h and less)</li> <li>• Must be provision for pavements</li> <li>• Parking on site</li> <li>• These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>• As per map</li> </ul>
<b>Residential collector</b>  <b>(Class V)</b> Local road within suburb	<ul style="list-style-type: none"> <li>• Residential Street</li> <li>• Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (50km/h and less)</li> <li>• Parking on site</li> <li>• Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>• As per map</li> </ul>

## LAND USES

The desired activities along the activity corridors, streets and nodes is illustrated by the following notation and definition and it must be used as a guideline and must be read in conjunction with the Nodes and Corridor Map at the end of this section.

### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)



Transport-orientated development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (i.e. a train station, metro station, BRT stop, or taxi rank), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs are generally located within a radius of 500 to 700 m) from a transit stop, as this is considered to be a convenient distance for pedestrians.

### NODE



A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport facilities such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

## EMERGING NODES



Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

### RETAIL



Areas of concentration of mixed land uses with the focus on retail

### MIXED USES



Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional etc. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. Mixed-uses may refer to retail at street level, institutional on the floor above and residential on the upper floors, or only one use per erf. Principles regarding retail, commercial and industrial uses / rights are still applicable as indicated in this document. Mixed uses in an industrial area may include industry, commercial and retail uses.



## OFFICE USES



These areas may accommodate land uses such as offices, retail industries, small places of refreshment, fitness centres, hairdressers, nail bars, medical consulting rooms, medical workshops such as a dental technician, prosthetist, orthotist, pathologists, optometrist technician and other businesses such as a beauty salon, pet salon, beauty/health spa, funeral undertaker, place of instruction and uses subservient to the main use. Land uses will be considered on merit, shall be compatible to the surrounding area and shall focus on serving the local community.

## INDUSTRIAL USES



Light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

## GENERAL PRINCIPLES IN NODES, CORRIDORS AND MIXED USES AREAS

One of the main concerns for non-residential development and high density development within residential areas is the compatibility and interaction of land use changes to the abutting residential uses. The existing characteristics of an area and street plays an important role in the determination of land uses that is considered appropriate and are compatible with the residential component. The permitted land uses shall only be accommodated along the street up to the mid-block line of blocks running parallel to a street or adjacent service lane.

The following general principles are applicable:

- Encourage development characteristics that spread economic impact (Spluma, Objective, promote economic and social inclusion).
- A "walkable" environment- place commercial, housing, jobs, parks and civic uses within walking distance of the community and transit stops ( National Development Plan, GSDF, Principle)
- Encourage infill and redevelopment along activity streets corridors within existing neighbourhoods.
- A mix of residential, retail, commercial and community uses needed along activity corridors and streets. (Spluma, Principle 7(a) Spatial sustainability).

- Activity streets must be frontage streets, with emphasis on public interface.
- Locate jobs, retail and commercial near residences to reduce car dependence. (National Development Plan, GSDF, Principle)
- Encourage active interfaces between buildings and streets.
- Larger uses should locate at the edge of the circle allowing a fine grain mix of use at the centre
- Residential and non-residential uses combined within the same or adjacent blocks.
- Encourage vertical mixing of uses.



Source: City of Tshwane; West Capital Urban Design Framework 2014

The following criteria shall determine if a particular erf is suitable to accommodate a permitted land use change:

- Acceptable safe access possible
- Adequate on-site parking available
- Adequate space available for landscaping purposes
- Acceptable impact on residential component
- Site characteristics
- Availability of services

The following Development Guidelines shall be used:

#### FAR

- Shall be determined by erf size, parking to be provided on site and the influence of privacy with regard to the surrounding residential properties.

#### HEIGHT

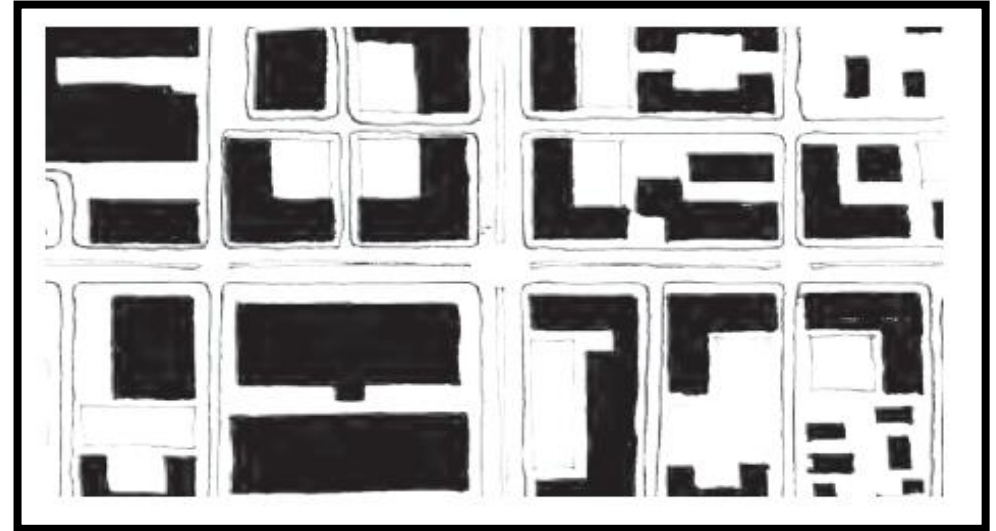
- 2 storeys or higher, depending on the locality and surrounding land uses. Clause 26(2) (b) of the Tshwane Town Planning Scheme, 2008 (Revised 2014), shall be excluded.
- Relate building height to street width and intended character. Urban centres are characterised by a strong sense of enclosure with street spaces that are generally lined by buildings set along the front property boundary.
- Solar access to adjacent structures, situated to the south of a property to be developed, shall be protected through as far as possible from the adjacent structure.



Source: City of Tshwane: Centurion CBD Framework, 2013

- To ensure no overlooking, the following is applicable:
  - No balconies shall be established on the side of the building abutting a residential property.
  - Windows shall either be located at such height or distance from the boundary of a residential property, that they do not enable overlooking.

#### BUILDING PLACEMENT



- Building position is important in the development of the complete and liveable street concept.
- Buildings must be placed as close as possible to the street boundary.
- Building should be staggered along street boundaries in order to break long street frontages.
- Orient buildings to sidewalks
- Place buildings at the sidewalk (perimeter blocks)
- Street and building configuration should be designed to create vistas, or to terminate views with a landmark feature, building, or public space.
- Buildings at intersections within the corridor and activity street should provide for landmark features.

## BUILDING LINES

- Build to lines or minimum 2 meter building lines on street boundaries.
- Buildings must be placed as close as possible to the erf boundary adjoining streets.
- Adequate side building lines should be imposed to protect the neighbouring residential component.
- The area within the building line should be used mainly for parking purposes and landscaping. Minimum 16% of the area should be covered with soft surfaces to allow permeability of storm-water.

## PARKING

- All parking shall be accommodated on the erf
- No off-street parking shall be allowed.
- Off street only in TOD.
- Carports shall be located in such a manner that it is not visible from the street
- Parking relaxations will be applicable in TOD and Corridors.
- Parking ratios per area and per application.
- Developers should determine their own parking ratio in certain areas.
- Parking ratio's will depend on parking available.
- Discouragement of the use of private car must be reflected in the parking ratio's
- Reduced private parking
- Shared parking can be allowed regardless of whether the zoning ordinance requires any off-street parking, or whether public parking is available
- Parking should be provided sub-surface as far possible.

## PHYSICAL BARRIERS

- Walls abutting neighbouring residential properties shall be maintenance free on the side of the adjacent property and constructed in brickwork. The wall shall at least be 2,1m in height to offer more protection to the abutting residential activity. No prefabricated concrete walls are allowed
- A well designed and articulated boundary wall of brick should be constructed on the other boundaries of the site. No prefabricated

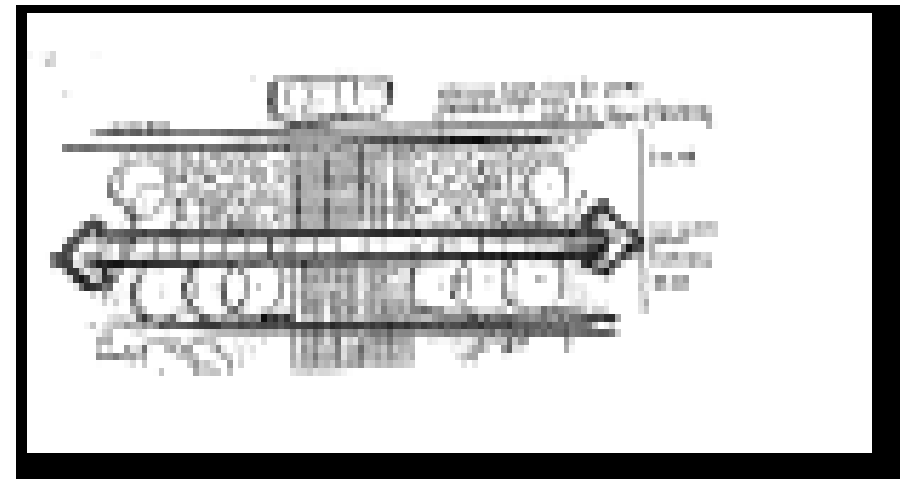
concrete walls are allowed. The boundary wall should be minimum of 2 meters high and a maximum of 3,0 meters high and should be maintenance free on the side of the adjacent property;

- Physical barriers along the street boundaries shall be semi-transparent to enhance landscaping, architecture and aesthetics. Set back upper levels of tall buildings to help create a pedestrian scale at street level and to mitigate unwanted wind effects.

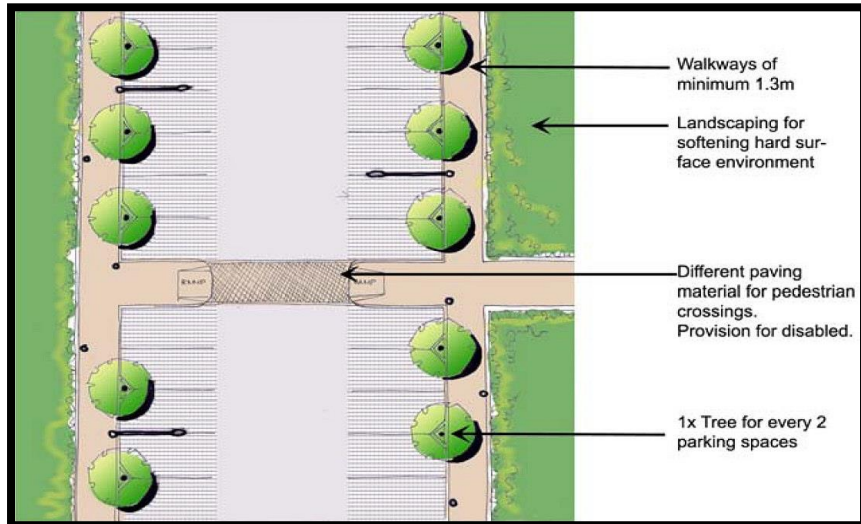


## LANDSCAPING

- Indigenous landscaping shall be incorporated.
- The road reserve between the erf boundaries and the street shall be landscaped in accordance with the landscape development plan. The landscaping should include design measures to prevent on-street parking and include a walkway (at least 2 m wide) to ensure pedestrian safety.



- One tree shall be provided for every two parking spaces.
- Soft landscaping shall form part of parking areas.



#### ADVERTISING

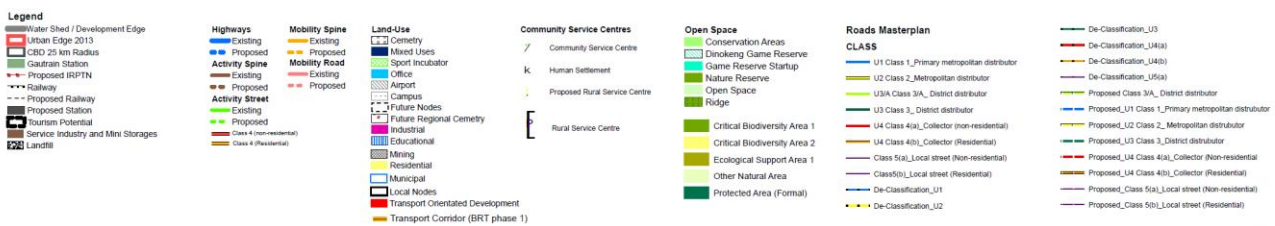
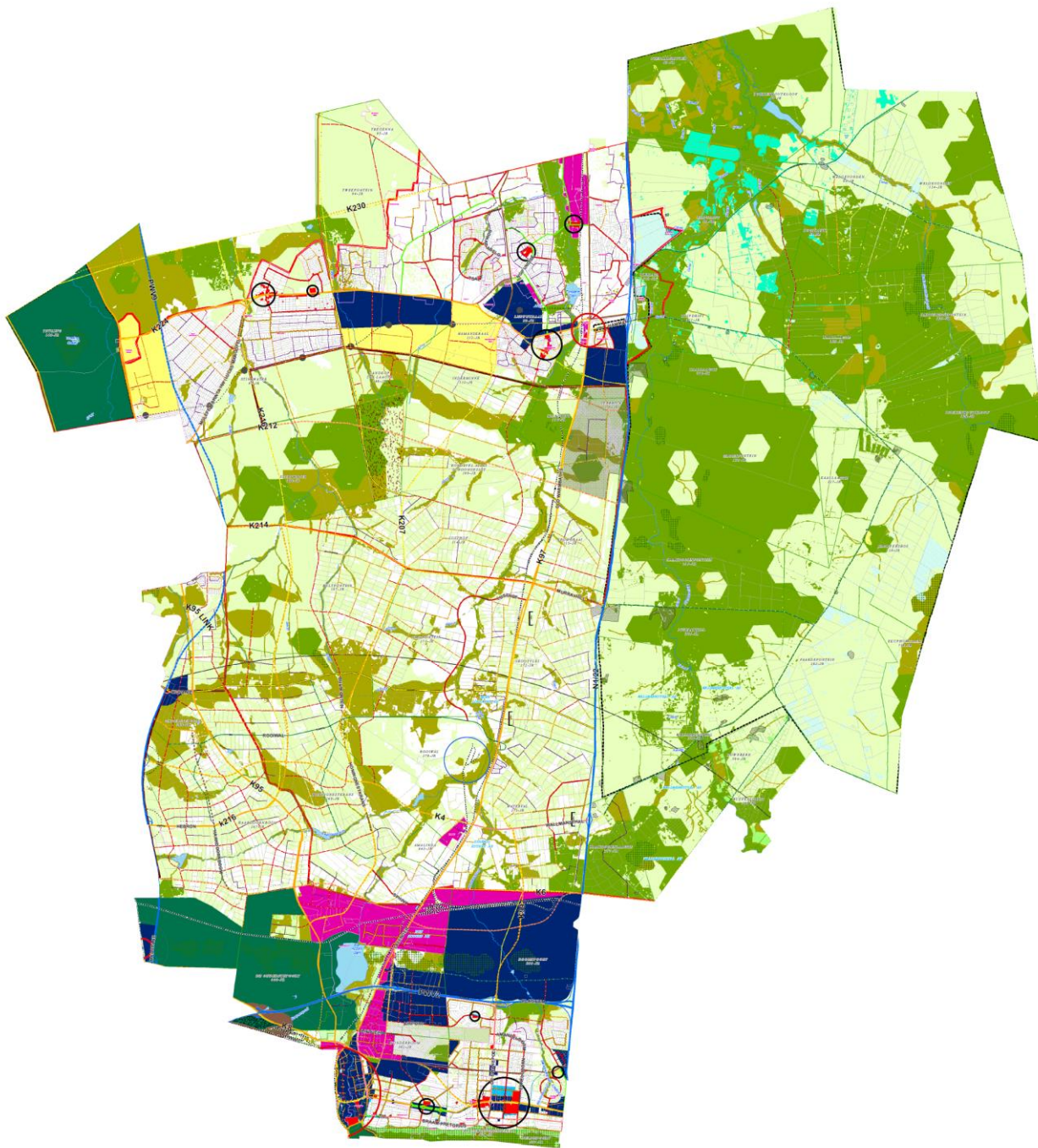
- Advertising must be as per Council policy and guidelines.

#### HEALTH MEASUREMENTS

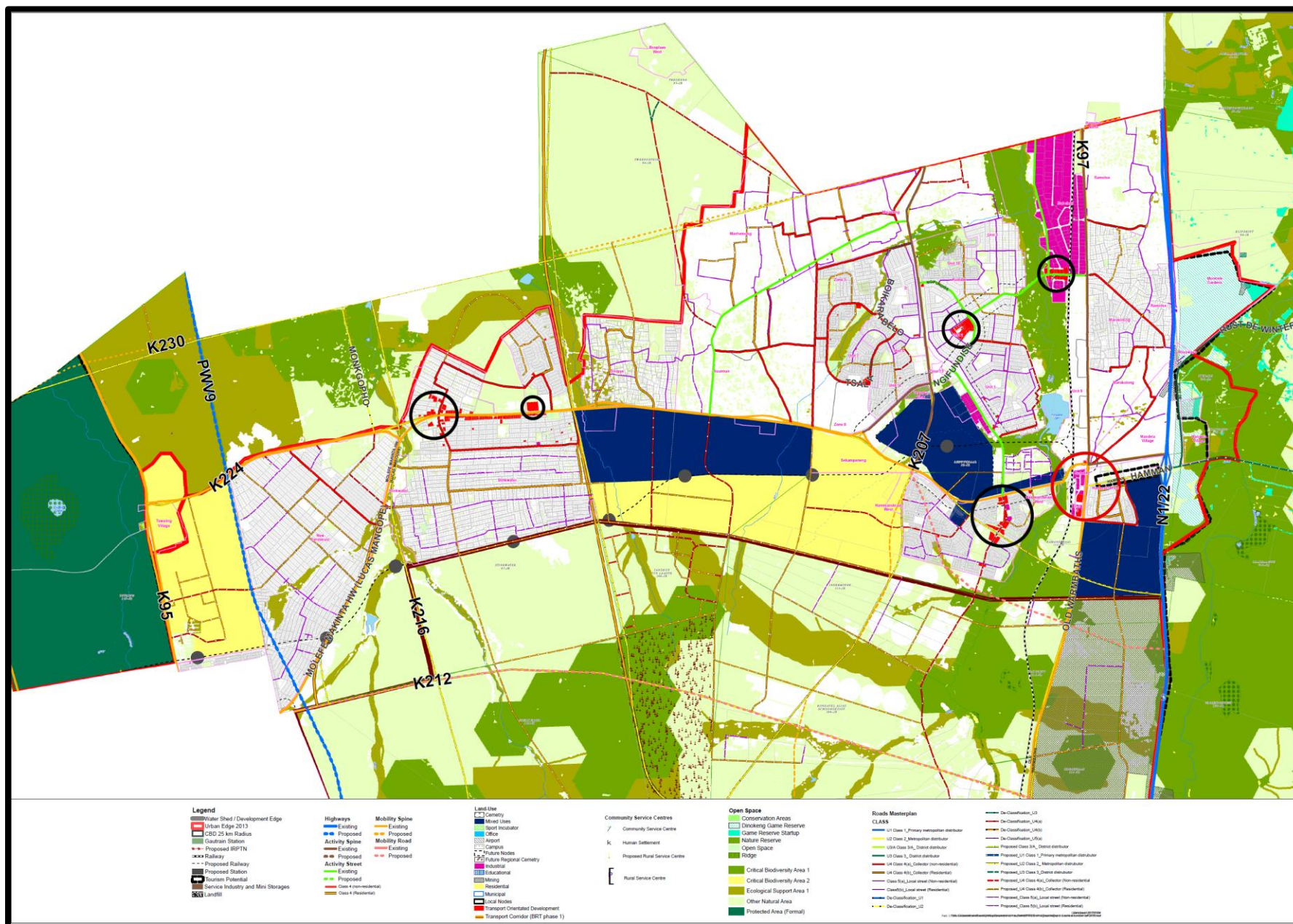
- Air-conditioning units or compressors shall not be mounted to the exterior walls of buildings without the prior consent of the Municipality.
- Any requirements for air pollution-, noise abatement- or health measures set by Municipality shall be complied with to the satisfaction of the Municipality without any costs to the Municipality.

All refuse areas and service yards shall be screened off with a solid wall and /or landscaping. Refuse areas shall be placed as far as possible from any residential property.

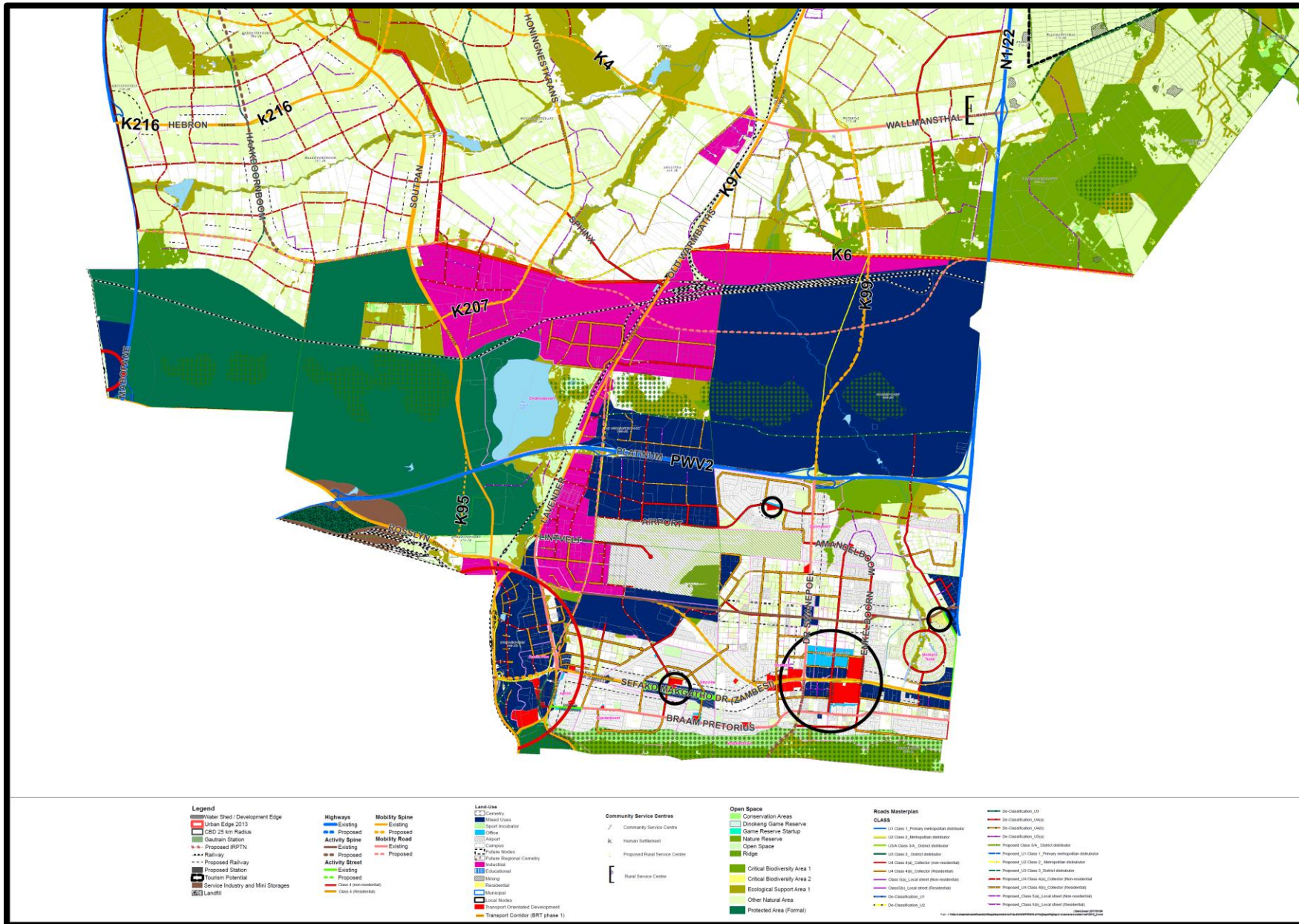














## 4.6 RESIDENTIAL

### Current City Form of Tshwane

- Apartheid left South Africa with a Fragmented Spatial Form
- Urban Sprawl and dysfunctional urban form.
- Low densities which mean that public transport cannot benefit from economies of scale.

### Solutions for Tshwane

- Reverse the spatial patterns of apartheid.
- Plan for compact cities and transport corridors.
- Compact cities – more infill and multi –story developments, mix of land uses.
- Density must be public transport orientated.- focus on commuter Rail and BRT.
- Integrate land –use planning and transport planning.
- Reduce the need to travel.
- Public transport must be prioritised over private transport.
- Embrace BRT's monorails, NMT, Pedestrians.
- Disincentives private car usage – reduce the number of vehicles on the road.

Residential development within Region 2 should be guided by the principles contained in the Tshwane Compaction and Density Strategy. The core principles of this strategy are:

- Density must contribute to the overall structure and functionality of the metropolitan area in that it takes place in a balanced, focussed, structured and meaningful way
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.
- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment

- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future
- Areas targeted for densification should be well served by social facilities such as education, open space, recreation etc. or should have the potential to be well served by social facilities
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Retain, enhance and encourage cultural assets
- Density's for old age homes and retirement centres, hostels and student accommodation will be evaluated on their own merits were location and accessibility to social infrastructure will play an important role.

Another important underlying principle of the Tshwane Compaction and Density Strategy, is that higher density developments should not merely be dictated by density, but that design and typology considerations should be of critical importance, as these are the factors that in reality make either a positive or negative contribution to the overall quality of the environment in which they are situated. Density and compaction is not an end in itself, but a means to achieve an overall efficient, integrated and sustainable metropolitan area. Density proposals within Region 2 should therefore not be done for the sake of density, but to achieve a range of other goals, such as :

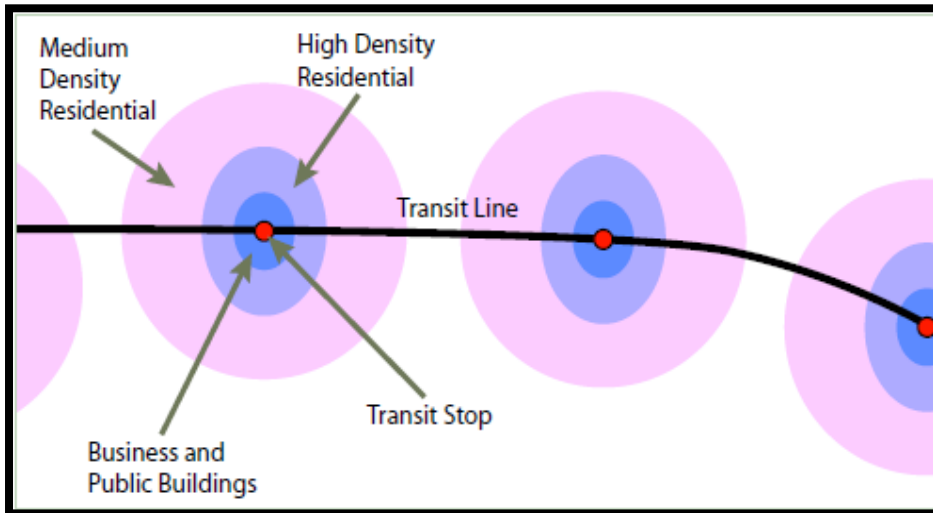
- increasing accessibility to public transport facilities
- creating the necessary population thresholds for economic growth and viable business development (especially small and medium sized enterprises) in specific areas
- minimising distances between home and work (i.e. integration of higher densities with employment opportunities)
- containing outward expansion of the urban footprint

The benefits of Density and Intensification :

- **Concentrations of people** in areas of high urban activity
- Access of people to opportunity increase
- Population threshold increases which means that a viable market for business and transport is established
- Density is significant for the economic performance of a city

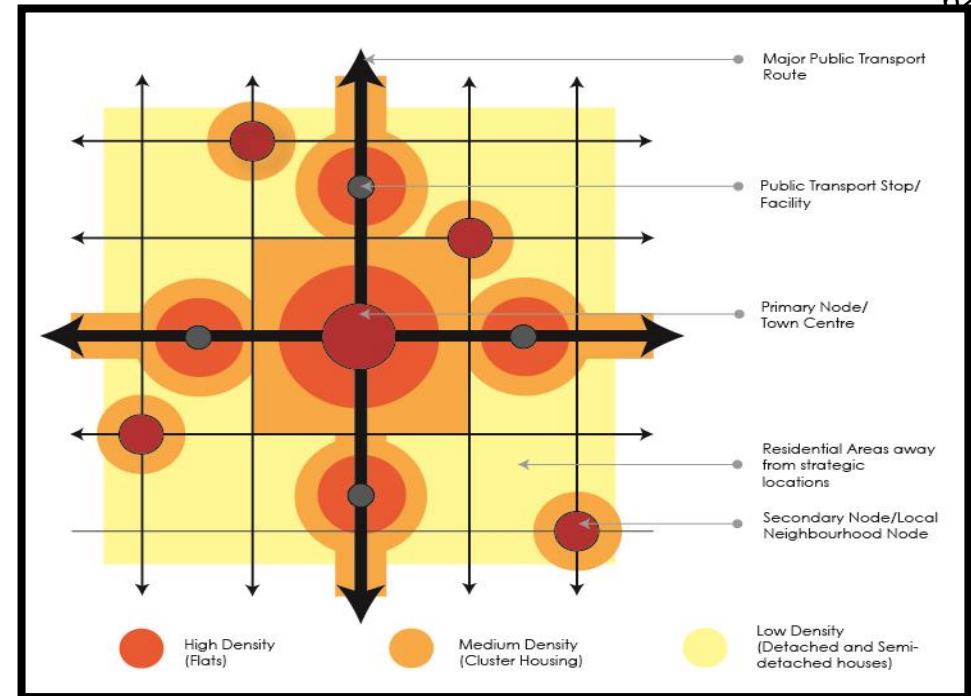
### Urban efficiency

- Travel distances and time
- Cost of Engineering Infrastructure
- Public transport becomes more viable
- High density assures the maximisation of public investments including infrastructure, services and transportation and allows efficient utilisation of land



The strategy proposes four key density zones, namely:

- Concentration Zones
- Linear Zones
- Suburban Densification Zones



### Criteria for densification

Applications for densification shall be evaluated against the following criteria: shape of property, height, whether sufficient parking is available, privacy of adjoining owners, consolidation of stands and access, northern orientation, services available, and unit typology, size of the property, open space.

Densification throughout the city will still be in accordance with availability of services and geological conditions such as dolomite restrictions.

Refer to the density map for a schematic illustration of densifications; it is important to note that walking distances to public transport will be applied in the evaluation of density applications.

All densification applications should adhere to the above mentioned criteria and development guidelines as indicated as in paragraph 4.6

#### 4.6.1 CONCENTRATION ZONES



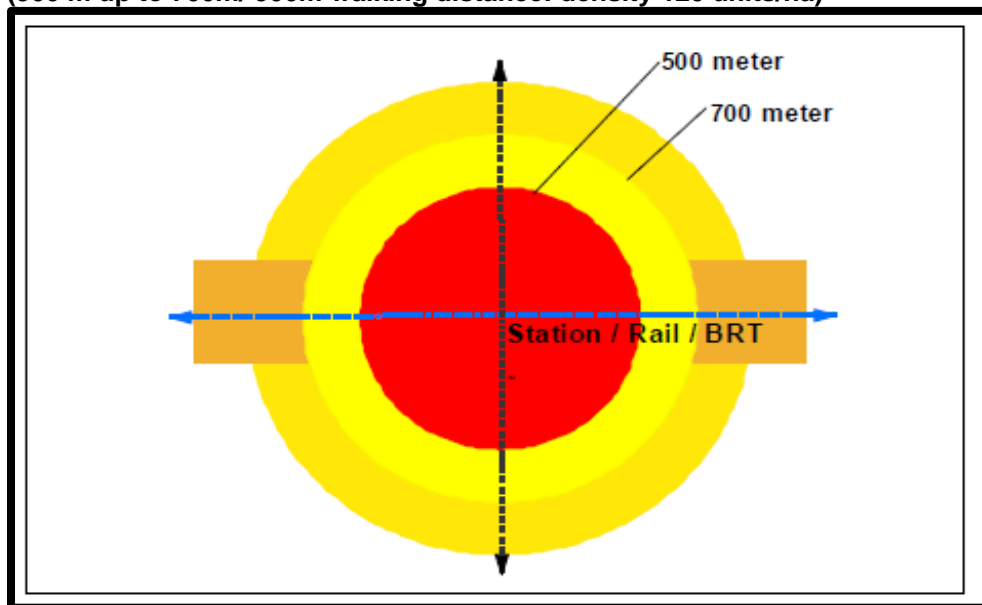
( Less than 500 m walking distance: density +/- 200 units/ha)

The **Concentration Zones** are the primary focus areas for high density residential developments and are centred on nodes of metropolitan importance such as Metropolitan Nodes and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within a 700m/900m walking radius of a railway station or a major public transport node.



(500 m up to 700m/ 900m walking distance: density 120 units/ha)



625  
The areas around the existing Gautrain and PRASA railway stations and around the proposed BRT / ITPN stations have been earmarked for higher density transit promotion zones. Densification should take place within a 900m walking radius of a BRT / IPTN station. Densities of + 200 units /ha in nodes and around rail stations will be applicable for the first 500 m walking distance and up to 120 units / ha for the area between 500 m and 700m /900 m. The walking distances will be determined by the distance between stations. The closer the station are to one another the shorter the walking distances will be.

Refer to Chapter 2 regarding the first phase on the BRT / ITPN trunk routes. The Akasia node to the CBD via the Pretoria North node will be the focus of residential densification within Region 1 and 2.

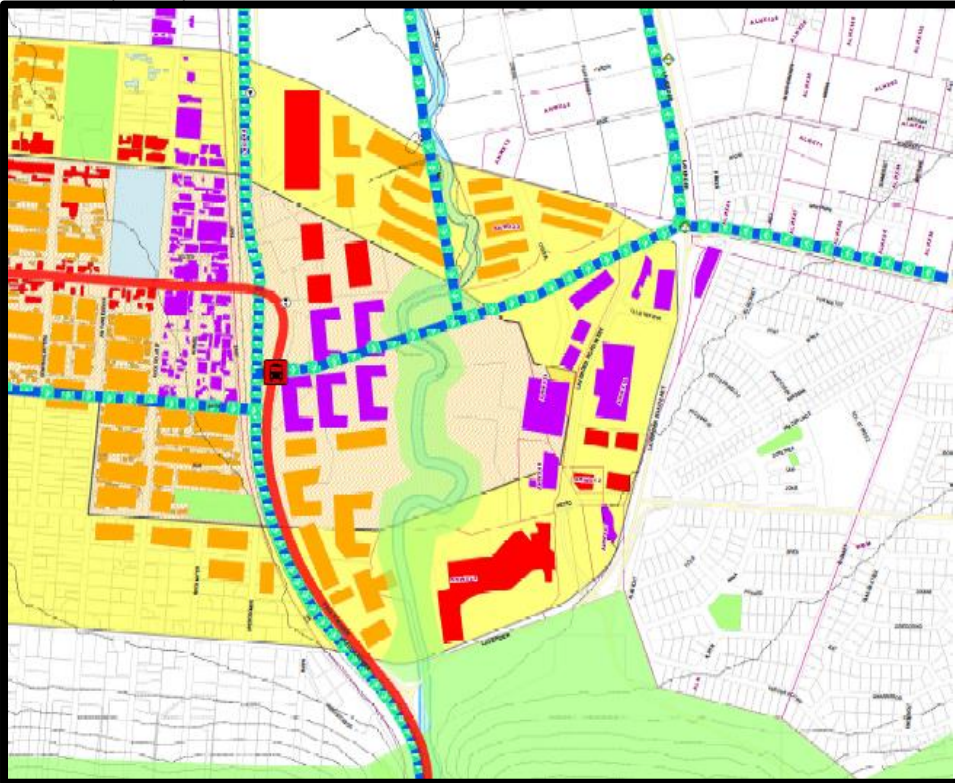
The concentration zones and linear zones (see paragraph 4.12.2) call for a drastic change in the built environment in terms of densities, typologies, built form and urban design, moving away from suburban typologies in these areas toward a more urban fabric and typologies.





**High density Zones** in Region 2 are focussed on the Metropolitan Cores and Urban Cores. These are the Hammanskraal Urban Cores, the Kolonnade Metropolitan Node and the Pretoria North/ Rainbow Junction Emerging Node.

Transit Promotion Zones refer to those nodes that are centred on transportation nodes such as stations and large inter-modal transfer sites, and where Transport Orientated Development should take place. Transport Orientated Developments are defined as a unique mix of high density land uses located within a 700m walking radius of a railway station or a major public transport node. In the Region 2 the area around the one existing station (Hammanskraal) and 6 planned stations have been identified as Transport Promotion Zones. (These include Hammanskraal, Stinkwater, Temba and New Eersterus). Medium rise apartments such as walk-ups and duplex developments should be developed within walking distance (700m) around these nodes.



#### Pretoria North/ Rainbow Junction Emerging Node

The concentration zones and linear zones call for a drastic change in the built environment in terms of densities, typologies, built form and urban design, moving away from suburban typologies in these areas toward a more urban fabric and typologies.

Two nodes have been earmarked for higher densities in Region 2 namely the Kolonnade Metropolitan Core and the area south of Sefako Makgatho and west of Lavender (Rainbow Junction/Wonderboom Junction). It is envisaged that these two nodes will develop a whole range of activities on an intense scale. In terms of the Kolonnade Metropolitan Core and the Rainbow Junction/Wonderboom Junction area high density residential development in apartment buildings of between five (5) and seven (7) storeys are proposed. In the case of the Kolonnade seven (7) storeys on the northern side of Sefako Makgatho is proposed, but a maximum height of three (3) storeys on the southern side of the Kolonnade is advisable. The detailed proposals should preferably include provision of open space to create a linkage with the existing open space system as illustrated in the development framework. Lower densities should preferably be developed adjacent to existing residential areas.

The Hammanskraal Urban Core and Temba City activity node in the northern area are regarded as emerging urban cores. Due to their distance from the Capital core only low rise residential developments (two to three storeys) are envisaged for these two areas. Higher densities can, however be considered. The remaining two nodes, Stinkwater and New Eersterus will, for the same reason, only be able to accommodate maximum two to three storeys.

In Region 2 the area around the 11 existing stations and 3 planned stations has been identified as Transport Promotion Zones. Medium rise apartments should be developed within walking distance (700m) around these nodes.

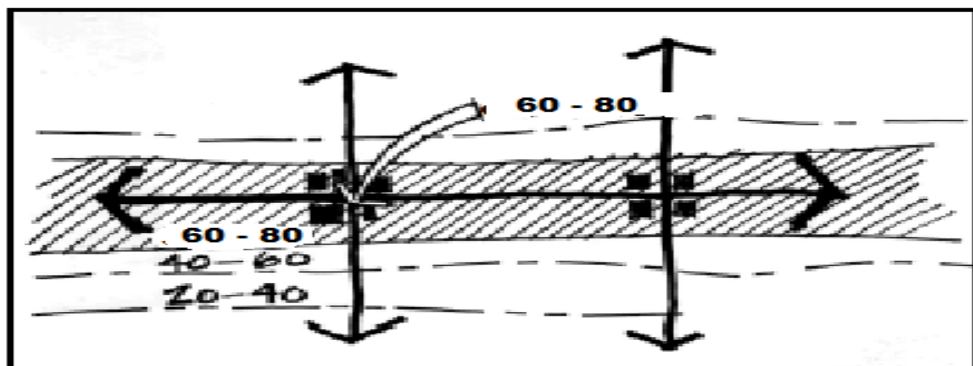
Densities within Concentration zones should not be developed at densities of below 80 units per hectare or less than 3 storeys.

#### 4.6.2 LINEAR ZONES (CORRIDORS AND SPINES)



( Up to more or less 200 m walking distance from public transport: density up to 80 units/ha)

For the purpose of densification, linear zones refer specifically to high intensity activity areas that are located along major routes. The routes usually carry high volumes of traffic to areas such as Zones of Concentration and Transit Promotion Zones and thus encourage the feasibility of public transport on strategic routes. The linear zones also connect the nodal areas with one another.



The identification of these linear zones should follow a focussed, selective and phased approach, where only the most important routes are identified in the short term. This is necessary in order to achieve a high level of concentration along each of these routes rather than dispersing development along too many routes, and then the critical mass for public transport viability is never achieved. In terms of the densification strategy, linear zones refer specifically to high activity areas that are located along major routes. The main aim of the routes should be to encourage public transport.

The main aim of the routes should be to encourage public transport. The K14 (Zambesi), K8/Third Road and K99 (Dr Swanepoel) development spines are regarded as linear densification zones. Typical housing typologies that will be appropriate along these routes will be medium rise apartment buildings, walk-ups and duplex residential developments. To promote public transport in the NER the

627  
linear zones will be restricted to these three routes on the short to medium term. Densities of up to 80 units per hectare should be promoted along these routes.

Densification along the activity spine in the southern part of the region, Braam Pretorius, is encouraged. Appropriate densification for this area should be encouraged taking into account the present character of the area.

#### 4.6.3 SUBURBAN DENSIFICATION ZONES



(density 10 – 25 units/ha)

Suburban Densification Zones are those existing suburban areas where there is potential for moderate densification because of the area's strategic location within the city (within a 25 km radius of the CBD). This zone makes for good application in areas that are close to places of employment, major retail centres and prominent transport routes, but where it is still desirable and warranted to maintain a suburban character. These areas are indicated in yellow on the Densification Map. The maximum density in these areas will be restricted to a maximum 25 dwelling units per hectare. The exceptions will be the nodal / core areas (as indicated on the densification map) within the suburban areas where densities of up to 200 units / dwelling-units per hectare can be supported depending on available public transport and social amenities. Activity streets in suburban areas as indicated in the RSDF are also earmarked for densification up to 80/units per hectare.

Whereas the Concentration and Linear Zones proposes a particular urban environment, both the Suburban Densification Zone and the Low Density Zone are distinctly suburban zones.

Within Suburban Densification Zones the core principles of densification are:

- Densification must contribute to the provision of lifestyle choices within the specific area. As an example provision must be made to sustain all the lifestyle phases from young working people and students, families with young children, and elderly people.
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.

- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment.
- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future. Pedestrianisation must be included into the densification process.
- Areas targeted for densification should be well served by social facilities such as education, place of public worship open space, recreation etc. or should have the potential to be well served by social facilities. Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase.
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Encourage community and stakeholder collaboration.
- Retain, enhance and encourage cultural assets

In essence, within this zone the urban form remains the same as it currently is, only with an increase in general density and a change in typology and density around strategic points within these areas.

Greenfields development (farm portions and small holdings) will be handled on merit and the general principles of density will apply.

#### 4.6.4 LOW-DENSITY ZONES



(up to 10 units/ha)

Low Density Zones are so called because those are the areas in the city where lower densities are actually more desirable, either because of location or *bona fide* special circumstances.

The majority of these zones are the peripheral areas that are removed from opportunities such as economic and employment nodes and mass transportation opportunities and is characterised by long travelling distances to areas of employment. In these areas, higher densities serve no purpose or could actually be detrimental to the functionality of the city, and it is preferable not to encourage population concentrations in these areas.

The Low Density Zone however also includes areas that are more centrally placed, but which have special characteristics that need to be preserved, and hence a low density is considered justifiable. These include areas along ridges, where lower densities are more conducive to a built form that is sensitive to the ridge quality from a visual point of view, including issues such as skyline, further spacing of buildings etc. These low density areas will also serve to provide visual relief in between adjoining higher density areas.

Ideally, a Low Density Zone's density should not exceed 10 dwelling units per hectare. Encouraging low densities in these areas are also important to ensure that the higher densities are directed and actually take place where they are desirable and required.

The following areas have been identified within Region 2 as Low Density Zones, even were a density of less than 10 units per hectare shall prevail. Erven directly adjacent to the Magaliesberg Natural Protected Area, one dwelling unit per 1000 m<sup>2</sup> (see RSDF map and detail map in office). This area will start right next to the Steve Biko Road in the west up to the Absa Conference Centre in the east. The same density will apply to undeveloped suburban areas outside the 25 km radius of the CBD.

#### 4.6.5 RURAL DIVISIONS



Divisions of farm portions and agricultural holdings will be according to the densification map. The basic principle applicable will be that division of up to 1 ha and more will be allowed in areas with Council approved piped water.

Divisions of 5 ha and more will be supported in areas without piped water except in cases of high agricultural potential and environmentally sensitive areas. Divisions must take flood lines and water courses into account when applied for.

Notation	Size	Services
	1 ha	Piped water
	2 ha	Piped water
	4ha – 5ha	Piped or Borehole Water
	8.5 ha	Piped or Borehole Water
	10 ha	Piped or Borehole Water
	+20 ha	Piped or Borehole Water

#### 4.7 SUSTAINABLE HUMAN SETTLEMENTS

629

Sustainable Human Settlements should be provided in accordance with the guidelines as set out in the above-mentioned Tshwane Compaction and Densification Strategy. Such settlements should be developed within concentration zones and along linier zones with the supporting densities as prescribed. Further human settlements should be provided in closes proximity of social amenities and public transport.

##### 4.7.1 INFORMAL SETTLEMENT UPGRADES AND RELOCATION

In Region 2 about 19 000 informal units.

- Existing informal settlements that fall outside of the urban edge should not be provided with in-situ upgrading. They should rather be relocated
- Informal settlements should only be relocated to areas that are geotechnically safe and do not fall within a flood line area.
- Compaction, infill and densification should serve as key guiding principles for both in-situ upgrading and relocations.
- Informal settlement management plans should incorporate landscape planning

##### 4.7.2 SOCIAL HOUSING



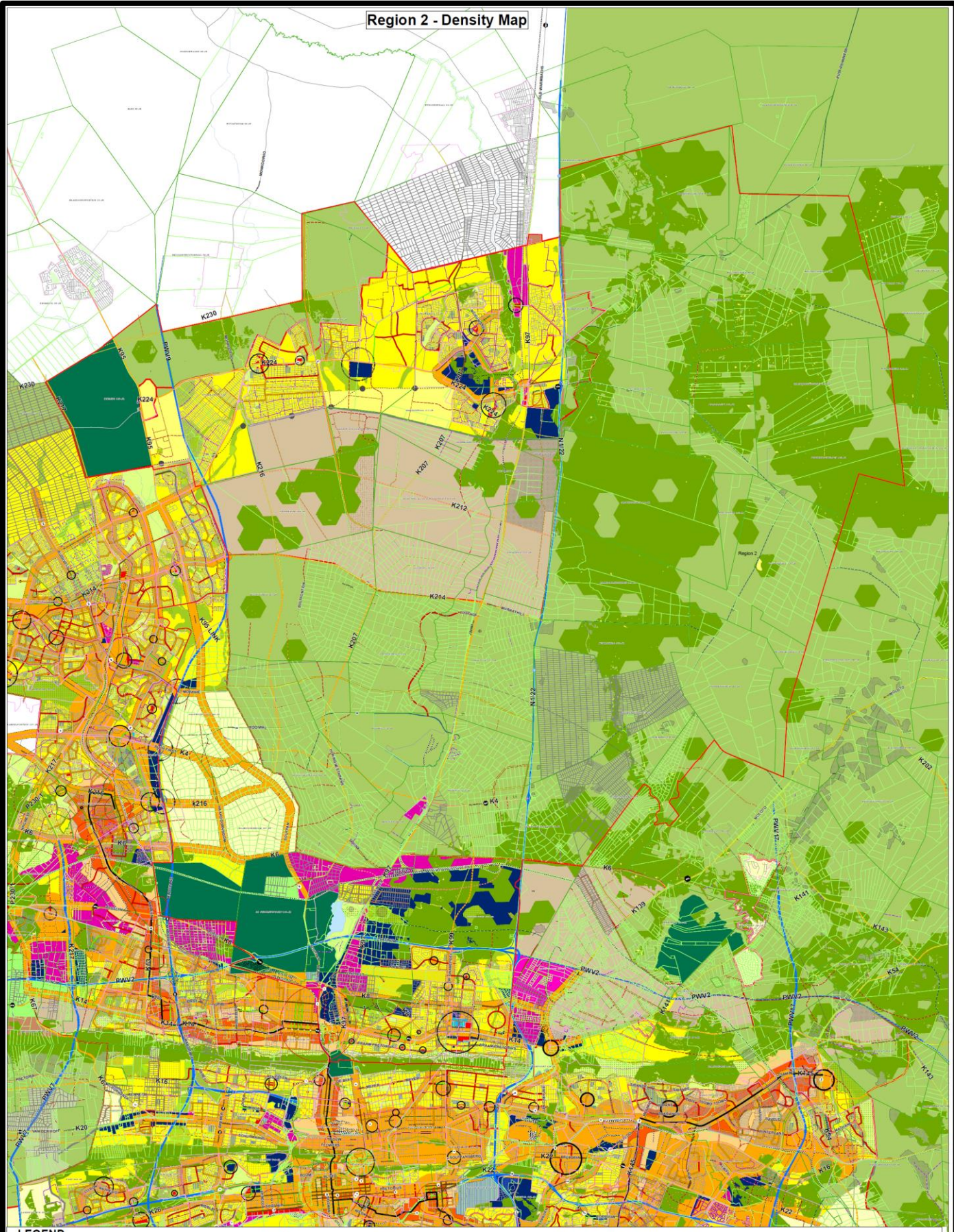
The provision of social housing should be guided by the following principles



- Housing should provide a range of typologies within strategic nodes in order to address both social and economic restructuring
- Housing typologies should allow for diversity
- Densification in order to address the green economy of spatial planning
- Brownfield development is preferable to greenfield development in order to achieve infill development,
- compaction and rejuvenation of decaying areas (where applicable)
- Housing location should be targeted towards significant places of work opportunity, i.e. metropolitan nodes and primarily and urban cores
- Housing developments should include the provision of or be located next to safe and efficient linkages with space for pedestrians and cyclists.
- Housing location should be well planned to ensure connectivity via public transport to other places of significance in the metropolitan area
- Urban design, landscaping and streetscaping should be incorporated in housing schemes
- Social housing should be an effective component of sustainable human settlements i.e. providing or being located close to social amenities and facilities
- Mixed-use residential buildings should be implemented where possible, allowing for an optimal use of all available resources, supporting transport orientated development and providing a sustainable living environment

Movement and Connectivity for more information on transport orientated development). Transport-orientated development supports the concept of the 20 Minute Neighbourhood.





LEGEND

- |  |  |  |  |   |  |
|--|--|--|--|---|--|
| <ul style="list-style-type: none"> <li>Water Shed / Development</li> <li>Urban Edge 2013</li> <li>CBD 25 km Radius</li> <li>Gautrain Station</li> <li>Proposed IRPTN</li> <li>Proposed Railway</li> <li>Proposed Station</li> <li>Tourism Potential</li> <li>Service Industry</li> <li>Landfill</li> </ul> | <p><b>Highways</b></p> <ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> <p><b>Mobility Spine</b></p> <ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> <p><b>Mobility Road</b></p> <ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> | <p><b>Land-Use</b></p> <ul style="list-style-type: none"> <li>Mixed Uses</li> <li>Office</li> <li>Airport</li> <li>Campus</li> <li>Future Regional Centre</li> <li>Industrial</li> <li>Educational</li> <li>Mining</li> <li>Cemetery</li> <li>Local Nodes</li> <li>Transport Orientated Development</li> <li>Transport Corridor (BRT phase 1)</li> <li>Emerging Nodes</li> <li>Retail Nodes</li> </ul> | <p><b>Service Centres</b></p> <ul style="list-style-type: none"> <li>Community Service Centre</li> <li>Human Settlement</li> <li>Proposed Rural Service</li> <li>Rural Service Centre</li> </ul> | <p><b>Open Space</b></p> <ul style="list-style-type: none"> <li>Conservation Areas</li> <li>Game Reserve Startup</li> <li>Nature Reserve</li> <li>Open Space</li> </ul> <p><b>CBA Categories</b></p> <ul style="list-style-type: none"> <li>Critical Biodiversity Area 1</li> <li>Critical Biodiversity Area 2</li> <li>Ecological Support Area 1</li> <li>Protected Area (Formal)</li> </ul> | <p><b>Road Classification February 2015</b></p> <ul style="list-style-type: none"> <li>U1 Class 1_Primary metropolitan distributor</li> <li>U2 Class 2_Metropolitan distributor</li> <li>U3A Class 3A_District distributor</li> <li>U3 Class 3_District distributor</li> <li>U4 Class 4(a)_Collector (non-residential)</li> <li>U4 Class 4(b)_Collector (Residential)</li> <li>Class 5(a)_Local street (Non-residential)</li> <li>Class 5(b)_Local street (Residential)</li> <li>Proposed_U1 Class 1_Primary metropolitan distributor</li> <li>Proposed_U2 Class 2_Metropolitan distributor</li> <li>Proposed Class 3A_District distributor</li> <li>Proposed_U3 Class 3_District distributor</li> <li>Proposed_U4 Class 4(a)_Collector (Non-residential)</li> <li>Proposed_U4 Class 4(b)_Collector (Residential)</li> <li>Proposed_Class 5(a)_Local street (Non-residential)</li> <li>Proposed_Class 5(b)_Local street (Residential)</li> <li>De-Classification_U1</li> <li>De-Classification_U2</li> <li>De-Classification_U3</li> <li>De-Classification_U4(a)</li> <li>De-Classification_U4(b)</li> <li>De-Classification_U5(a)</li> <li>De-Classification_U5(b)</li> </ul> |
|--|--|--|--|---|--|



## 4.8 MOVEMENT SYSTEM

During the development of the RSDF's the spatial location of proposed land uses is considered. It is essential that the transportation network and services can support the land use proposals. Therefore, a strategic assessment of the transportation needs was undertaken to identify possible transportation system interventions and refinements. The proposals are intended to serve as a point of departure for further more detailed feasibility studies.

### 4.8.1 RSDF MOVEMENT SYSTEM PROPOSALS

Since the RSDF's are concerned primarily with the physical environment and aim to guide development, the transportation aspects in this section focus on physical infrastructure and not public transport services. Public transport servicing and scheduling should be guided by the spatial framework and development. CIPT

Furthermore, the proposals made are largely aligned with existing planning and aim to:

- Supplement existing transportation planning.
- Recommend large scale intervention.
- Scrutinise existing transportation planning (infrastructure).

All proposals made in this section are of a principle nature and require to be investigated in more detail to establish feasibility. Therefore the proposals are intended to inform the transportation planning process in an attempt to ensure integrated land use and transportation planning.

#### 4.8.1.1 Rail

#### Passenger Rail Agency of South Africa (PRASA) network planning proposals

PRASA priority corridor in the next 2 years in Gauteng is the Mabopane Johannesburg/Soweto line. The proposal includes upgrading of the

capacity in terms of rolling stock and lines. New stations are also planned within this upgrading phase.



- The proposed link between Mabopane and Hammanskraal/Temba is supported, as this will provide a high capacity/mobility link between job opportunities at Babelegi and residential areas.
- The introduction of a commuter rail service on the Pyramid-Mamelodi railway line would also support the area provided a commuter station is constructed on this line in the appropriate location.

#### Road based rail transfers

Modal transfer/rationalisation on a regional basis:

The feasibility of rerouting buses from the former homelands (to the north-east (east of the N1) to Hammanskraal (or an intermediate point) coupled with the re-introduction of the Hammanskraal rail commuter service should be investigated. At a conceptual level this would have the benefit of reducing the bus subsidy levels, reducing congestion along Baviaanspoort Road and improving the feasibility of the Hammanskraal commuter rail service.

#### 4.8.1.2 Road network

There are currently several important strategic road links that are needed and justified. Some of these are planned to be implemented using public and private funding in partnerships. In Region 2 the following strategic projects are indicated:

- K99 (Dr Swanepoel) link from Sefako Makgatho Drive southwards across the Magaliesberg (linking the North Eastern and South Eastern Regions).
- Rainbow Junction development including the K14 link (linking Sefako Makgatho Drive and Rachel de Beer) and various other upgradings.
- Development of K8 extension.
- Development of a route along K8/Third Road with a possible interchange on the N1 and possibly linking up with the R573 (Moloto/Kwa Mhlanga Road).

Two projects are indicated in the ITP as planned:

- K97 link between PWV2 (N4) and Lavender Road.
- K8 (between Lavender Road to link up with Third Road).

In addition to these major roads projects, distributor roads projects to a total value of R681m have been identified as priorities in the northern and other previously disadvantaged areas in Region 1 and Region 2.

- The area north of the Onderstepoort Nature Reserve is currently served by the K95 and the PWV9. The K95 road will have to be upgraded to support this development.
- An access interchange on the PWV2 with the K95 alignment is planned. The construction of this interchange must at least coincide with development in the focus area.
- The planned realignment of the K97 to link into the existing interchange on the PWV2 would improve the accessibility to the Wonderboom Airport the immediate area and serve Rainbow Junction well from the primary road network.

- The proposed K99 link across the Magaliesberg into Frates Street is important given the limited north-south capacity and mobility. The importance of this link is increased by the RSDF proposals along the K99. Consideration should be given to creating continuity along the K99 to Codonia/Stead Avenue instead of Frates Street as it would then link directly into Hatfield instead of terminating at another arterial the way Frates Street does (Soutpansberg Road).

#### 4.8.1.3 Bus Rapid Transit (IRPTN System)

The need for a high-quality, customer-orientated public transport (transit) system was identified that will deliver fast, comfortable and low-cost urban mobility within the City. The City's Integrated Transport Plan (ITP) and the Strategic Public Transport Network (SPTN) approved by Council in January 2007 clearly identified certain corridors that should be further investigated and implemented as mass rapid transport corridors.

##### Vision and Objectives

Tshwane's residents depend upon the efficient provision of public transport services to fulfill their daily mobility needs. The integration of the different rail, bus, minibuss, and non-motorised transport options remains a major goal in delivering more convenient and cost-effective services. The proposed Implementation Plan seeks to articulate the vision and steps required to implement a public transport system that integrates all modes into a seamless and high-quality network.

The overall goal of this initiative is to improve the quality of life for the city's residents through the provision of an integrated public transport network that is rapid, safe and secure, convenient, clean, affordable, and socially equitable.



#### Phased Implementation

The development of the full integrated network will take place over a series of phases, in order to match the available resources for planning, financial, requirements and construction. In addition to the full implementation of the Priority Rail Network, the following corridors are recommended for development of trunk and/or other road services in project Phase 1. See Details in Chapter 2.

Phase 1 of the BRT consists of the corridor from the Klipkruisfontein Node in Soshanguve past the Akasia Node and Rainbow Junction Node to Pretoria CBD, with a further extension to Hatfield, Menlyn and Mamelodi, as shown in the diagram below:

## 4.9 RURAL AREAS

The newly demarcated CoT, resulting from the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order i.e. to protect the Environmental sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land use development in the less sensitive areas.

The map at the end of this section will be applicable to the rural areas of Region 2.

The Tshwane Rural Component will promote:

- An effective response to rural poverty.
- Measures to ensure food security by maximizing the use and management of natural and other resources.
- Promote the prevention of irreversible loss of productive agricultural land.
- Limit the fragmentation of productive agricultural land.
- Creation of vibrant, equitable and sustainable rural communities.
- Contribution towards the redistribution and sustainable use of all potential agricultural land.
- Creation of employment and business opportunities for the existing rural population.
- Aims to prevent natural disasters like erosion and pollution and other detrimental effects on natural resources.
- Formalisation of residential settlements according to the agri village concept.

- Accessibility to community facilities, work opportunities and housing for all.
- Maintenance of acceptable standard for roads and other modals.
- The provision of Public transport as a service for the more densely rural areas.
- The Identification of multipurpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations.
- Provision of Adequate and respectable services to improve living conditions.

Attention to the matter of ownership and tenants' rights especially in areas where tribal land ownership exists.

### 4.9.1 Major Rural Roads

Each Region shows major roads and routes of Metropolitan context through the Region ensuring movement patterns and the continuation of roads and corridors for the greater Metropolitan area.

The following major roads serve the Rural Component of Region 2:

- N1 (existing)
- N4 (existing)
- K14/R513 (existing)
- R80 (existing)
- K95 (existing)
- PWV 9 (proposed)
- K207 (proposed)

#### 4.9.2 Urban Edge



There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

As indicated in Part 2 “Metropolitan Context” of this document the Urban Edge cannot be seen as the only management tool to demarcate the Rural Component of Region 2. The urban edge was previously determined by The Gauteng Spatial Development Framework but in 2012 it was decided by Gauteng Province that Metros could determine their own edge. The urban edge in the northern area as shown on the previous RSDF and LSDF was still determined by the Province in its present location, with good reason at the time.

Development of new townships, especially all inclusive townships that included schools, clinics, libraries, retail and different types of housing typologies have not materialised fast enough for a number of reasons, i.e.

- Shortage of bulk infrastructure (water, sewerage and roads)
- Electricity problems
- Limited funding available for housing stock.
- NDPG funds were not allocated as promised.
- Shortage of funds lead to only RDP types of housing to be erected without variations in typologies.
- Natural increase in population was exacerbated by influx from outside the area.

Over the past few years the development in the area, warranted a new look at the movement of the urban edge to the south of Stinkwater, Kudube and Hammanskraal West etc., inter alia, to include the new Regional Cemetery. There are big financial institutions and developers that are willing (with the necessary grants of the government) to invest in “liveable communities” inclusive of community facilities, different housing typologies, retail, open spaces and parks.

In order to do this the edge must be moved southward to the alignment of the proposed K212 route. This will enable the institutions to develop their properties and provide a need for different housing typologies. This area will be indicated on the RSDF as future development area.

The southward movement of the edge will have the following benefits:

- It will help solve the housing shortage.
- The developers will help pay in advance for the bulk infrastructure.
- Retail and community facilities will be provided.
- Different housing typologies will be built.
- Development will move south instead of further away from the CBD.
- The construction of the proposed rail link between Soshanguve and Hammanskraal will now be able to move forward because the number of passengers required to operate the line will now be reached sooner

Both the proposed developments are near or right next to the proposed rail line.

#### 4.9.3 Development Edge



The development edge compliments and corresponds mostly with the Provincial Urban Edge to indicate the extend of the Urban Fabric but it deviates in some instances and only in some Regions from the Urban Edge where it follows the line indicating the non-availability of services infrastructure in the Region. The resulting areas in between the deviation of the edges can realistically not be developed in the near future and need to remain rural in character until such time that services can be provided.



#### 4.9.4 Future Urban Development Areas



These areas that results from the non- availability of services will form part of the Urban fabric in the future but needs to be planned for and preserved as Rural areas in a sensible way that will not constrict its incorporation when needed.

The rural-urban fringe located beyond most suburbs, where low-density suburban development meets rural and semi-rural areas. Often contains a mixture of land uses, including large-lot suburban residences, country estates, low-density commercial development, and the remaining agricultural and rural land uses. Specific concerns arise with such developments regarding the creation of “leap-frog” development that stimulates further sprawl of the urban area. By contrast, the small holding and agricultural potential of this zone can be planned to constitute an integral and dynamic part of the city economy (sometimes referred to the “urban breadbasket”)

Within Region 2, the further northward expansion of residential development is not encouraged and the framework proposes that areas closer to the core should be developed as future residential expansion areas. Further efforts to re-direct residential development in a southerly direction are proposed for the area located between the PWV-9 and the Soutpan Road within Region 2.

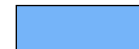
The Haakdoornboom area presents an opportunity for the development of a sustainable, integrated and efficient settlement area, in particular because of the following characteristics:

- The area is large enough to accommodate a range of urban activities and development typologies;
- This is the last significant parcel of undeveloped or underdeveloped land in the northern part of the city which is inside the urban edge; and

Proposed Development consideration for development in the Future Urban Development area can be summarised as follows:

- The contribution of the proposed development towards the goals of the City strategy and Metropolitan Spatial Development Framework.
- The availability of bulk engineering services – especially water and sewerage
- The environmental sensitivity of the area – obvious considerations such as watercourses, ridges
- Proximity of site to public transportation routes/facilities such as stations
- Proximity to other supporting social facilities, economic opportunities, retail
- Physical features that may define the development – such as railway lines/watersheds/ provincial roads/environmental areas
- Liveable communities will have to be developed by means of social services such as schools, police stations and other amenities.
- Aesthetics and urban design guidelines will have to be provided with a diversity of housing typology which breaks from the tradition of monotonous housing schemes which have dominated the South African landscape for too long.
- The provisions of sustainable economic opportunities within these areas.

#### 4.9.5 Management Zones



The Management zones are areas not considered suitable for urban development as they are not well located in terms of the larger urban structure and areas of opportunity. They may also be characterised by environmental sensitivities as indicated by the Biodiversity Plan and the Tshwane Open Space Framework, which are important to protect from a metropolitan perspective. Rural development such as low density eco and

equestrian estates will be supported depending on services that can be provided.

Within these Management Zones land uses and densities, which do not fit into the denser urban complex, should be permitted. Uses supported in the management zone would include Lodges, Wedding Venues, storage facilities, place of refreshment, children party venues, agricultural industries and abattoirs. The availability of services and the ease of access to major roads will play an important role in the evaluation of no residential uses as mentioned above. Non-residential uses serving the rural population and surrounding urban areas should be concentrated in Community Service Centres as indicated on

The following Management Zones are earmarked in Region 2:

- The land between the N1 in the east and the Mabopane highway in the west, excluding the sensitive land adjacent to the Apies River.
- The farm portions on both sides of the Apies River.
- The southern part of the Onderstepoort Nature Reserve that is separated from the reserve by the N4 Platinum highway.

Non- agricultural uses will only be promoted if the amenity of the rural area remains intact and the impacts of the development on neighbouring properties are minimal.

#### 4.9.6 Agricultural High Potential Areas/ Biodiversity Zones



Where so indicated certain land in Tshwane Rural Component has unique agricultural potential in terms of its location, soil quality, being close to irrigation and other amenities and may be able to provide high yields or products with specific feeding qualities. These quality areas have importance on Regional, Metropolitan and even National level and should be preserved and used in terms of their uniqueness only. Food production for the country as a whole should be maintained and improved for future generations.

Productive agricultural land will be protected as far as possible in terms of this framework. Fragmentation of agricultural high potential areas will be restricted to a minimum. Agri- industry will be supported in and in close proximity of agricultural high potential areas.

#### 4.9.7 Sensitive Protected Areas /Biodiversity Zone



Throughout Tshwane there remain farm portions outside of the Urban Edge that will continue to be used for agricultural purposes. These areas are sometimes already enclosed by other land uses but are not earmarked for change yet. It is necessary to preserve the agricultural and rural character and these areas need to be protected from other uses

Sensitive protected areas are a Combination of the Biodiversity Plan protected areas, including ridges and streams, natural resources, fauna and flora protected places / areas. These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Protected Area of Region 2 is located mainly along the Magaliesberg Protected Nature Area along the southern boundary of the Region. This area should be managed through environmental codes, to protect the basic resources. Only development in line with the conditions set out in the following tables should be considered.

These areas should be managed through environmental codes, to protect the basic resources. Only development in line with the conditions set out in the following tables should be considered. The Sensitive Protected Areas include important areas, irreplaceable areas, protected areas, ridges and blue ways in line with the C-Plan

Non- agricultural uses will only be promoted if the amenity of the rural area remains intact and the impacts of the development on neighbouring properties are minimal.

#### 4.9.8 Sensitive Ridge Areas



Sensitive Ridge area as indicated on the C Plan should be protected as far as possible in terms of development. Hall's Hills and the Magaliesberg Protected Nature Area are also regarded as sensitive. All development will be restricted in terms of environmental considerations. These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Ridges of Region 2 is located mainly along the Magaliesberg Protected Nature Area along the southern boundary of the Region. This area should be managed through environmental codes, to protect the basic resources. These areas should be managed through environmental codes, to protect the basic resources.

#### 4.9.9 Heritage and Cultural protected Areas

Heritage and  
Culture

Similar to the protection of monumental structures, places and land within the urban context there are equally important structures places and land found in Tshwane's Rural areas that need protection. In most cases the best protection can be provided when it is also developed and operated as tourist attractions.

#### 4.9.10 Tourism Potential Places/Areas

Tourism

Of natural and economic importance for Tshwane is the accruelement and expansion of the already known places of tourism, tourist attractions and activities. Places with tourism potential occur throughout Tshwane's rural areas. Conservation and preservation needs to be maintained and tourism

potential exploited without damaging overall natural and rural character. Different tourism related uses such as picnic areas, lodges, wedding venues and arts and craft related uses including places of refreshment will be supported in these areas. Commercial uses and uses such as storage and light industrial uses should not be supported in these areas.

#### 4.9.11 Conservancies

Conservancies

Proclaimed conservancies have legal standing and management prescriptions. Conservancies strive towards preservation and the protection of their present state and the notion should be honoured in the Rural context and the evaluation of development proposals. There are no Conservancies in the rural component of Region 2.

#### 4.9.12 Game and Nature Reserves

Game and Nature  
Reserves

The following places with tourist potential can be found in Region 2 and no development shall be supported in the proclaimed nature reserve areas except tourism related uses:

- Dinokeng Game Reserve
- Wonderboom Nature Reserve
- Onderstepoort Nature Reserve
- Tswaing Crater

#### 4.9.13 Mines and Places of Manufacturing

Mines/ Places of  
Manufacturing

There are a few and dispersed mines and/or places of manufacturing in Region 2. All of them need to be managed for their time of existence and specific rehabilitation programs should be investigated and installed.

Protection measures should be implemented for adjacent land and sensitive environments.

#### 4.9.14 Human Settlements



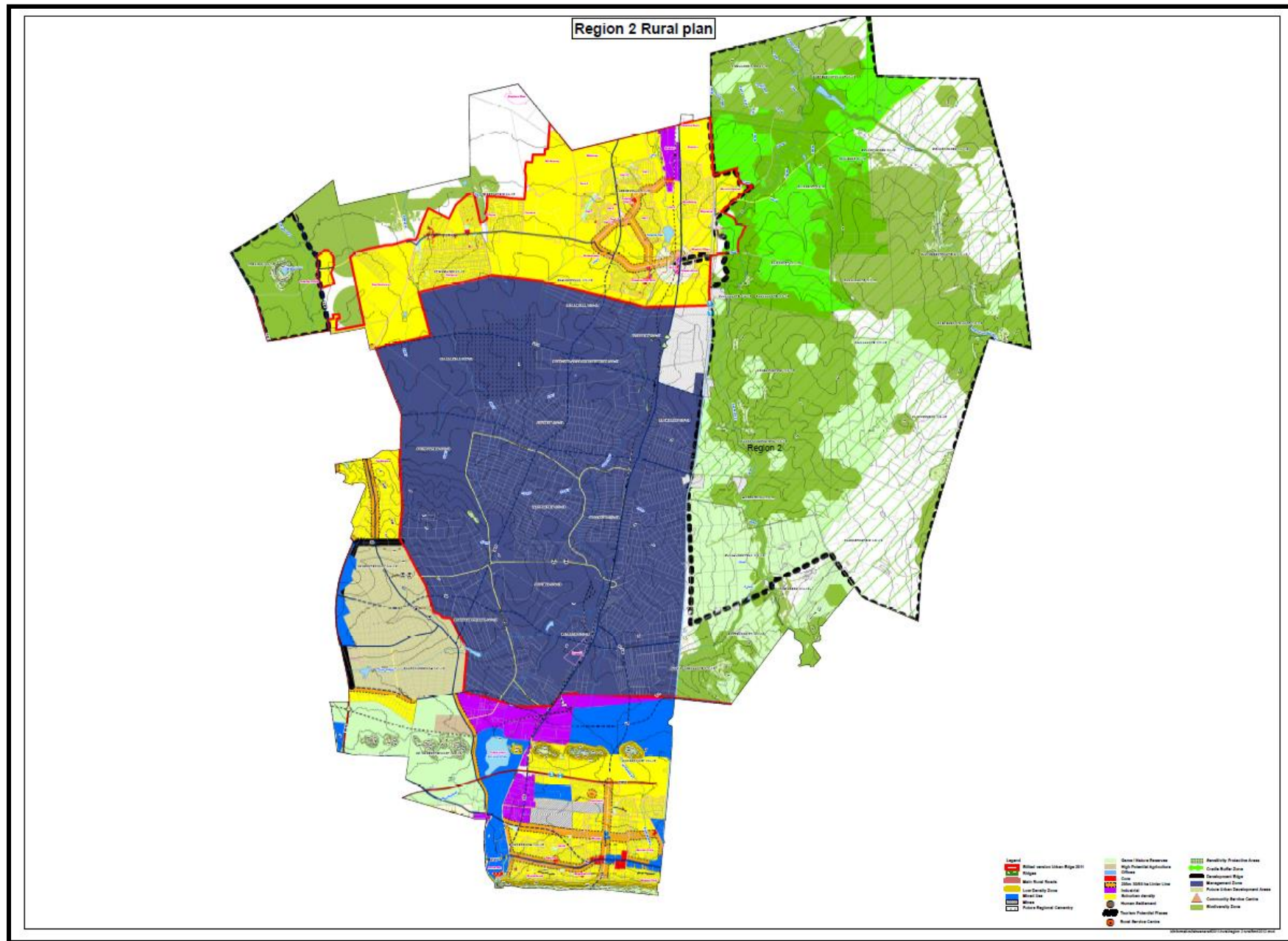
There are a number of places in the Rural Component of Tshwane where villages and other forms of human settlements occur. Some are tribal in nature with official captaincy while others are just a habitual conference of people living together. Some have legal support while others are just illegal squatters. It remains a sensitive issue how to deal with settlements and in each specific case measurements should apply how to best resolve settlement issues. Settlements to remain should be formalized and provided for in terms of human needs and basic services. A settlement that must move needs planning according to an approved program. Specific measures must be taken to manage adjacent land.

#### 4.9.15 Community Service Centres



Remote rural areas most of the time do not have the convenience of facilities and amenities within easy reach and sometimes have to rely on the closest urbanized area to fulfil certain basic needs. Because of the extensiveness of most Rural areas it is therefore most logical to concentrate whatever facilities, services and amenities that can and should be provided together close to the bulk of the population at a location that is the most accessible to all. As transport provides accessibility, road junctions or cross roads tend to provide most accessible locations for surrounding populations in vast rural areas. It is the challenge of each region to identify such suitable and accessible location/s to establish Community Service Centre/s for its rural component.

There are no Community Service Centres located in the Rural Component of Region 2.





#### 4.10 OPEN SPACE AND ENVIRONMENTAL AREAS

The RSDF plan does not indicate the whole Metropolitan open space network, because of its concern with open spaces on a regional and/or metropolitan scale only. The plan shows as 'Open Space' all rivers and water courses, all mountain ranges and ridges as indicated in the Tshwane OSF, all protected areas, conservation areas and conservancies, as well as the major brown and red nodes. Brown nodes include recreation resorts, multipurpose park/sport facilities and golf courses. The plan also shows as 'Environmental Areas' all irreplaceable, important and high ecological sensitivity sites, as identified and defined by GDARD. Less important brown and red nodes, brown and red ways, and grey nodes and ways are not shown. For complete and detailed information regarding the Metropolitan open space network, it is essential and of utmost importance that the Tshwane OSF plan is always consulted together with the RSDF plan.

The environmental features of Region 2 are major form giving elements that determine the surrounding urban structure.

The region is characterised by the following aspects:

- Significant ridge systems in the southern parts, notably the Magaliesberg, Halls Hills and further north the Pyramid Hill system;
- Significant watercourse systems throughout, most notably the Apies River and Boepens Spruit that flows into the Bon Accord dam and of lesser significance the Montana Spruit, Wonderboom Spruit and Kaalplaasspruit.
- Several dams, that being the Bon Accord, Stinkwater, Temba Beach dams and wetlands at watercourse confluences of the Stinkwater Spruit and Apies River.
- Protected Areas at the Wallmanstahl, Onderstepoort- and Wonderboom Nature Reserves.
- Ecologically sensitive areas associated with ridge and watercourse systems;
- Very little information on ecological sensitivities within the North-West Province areas;

- Very little or no CoT maintenance actions around ridge and watercourse systems in region's northern parts;
- Very little CoT maintenance data on all types of open space resources;
- Very low ratio of developed open space, especially in the northern most extent of the region;
- The absence of any significant regional recreational open space facility;
- Potential Place making opportunities around the Mabopane Highway, N1 and at the proposed Urban and Metropolitan Cores for Kolonnade and Temba/Hammanskraal Station.

Discussions with GDARD and the Municipality's Environmental Planning Section must be held before any development or change of land-use application can be submitted, to determine whether the important sites, irreplaceable sites and high ecological sensitivity sites are subject to a possible E.I.A. survey.

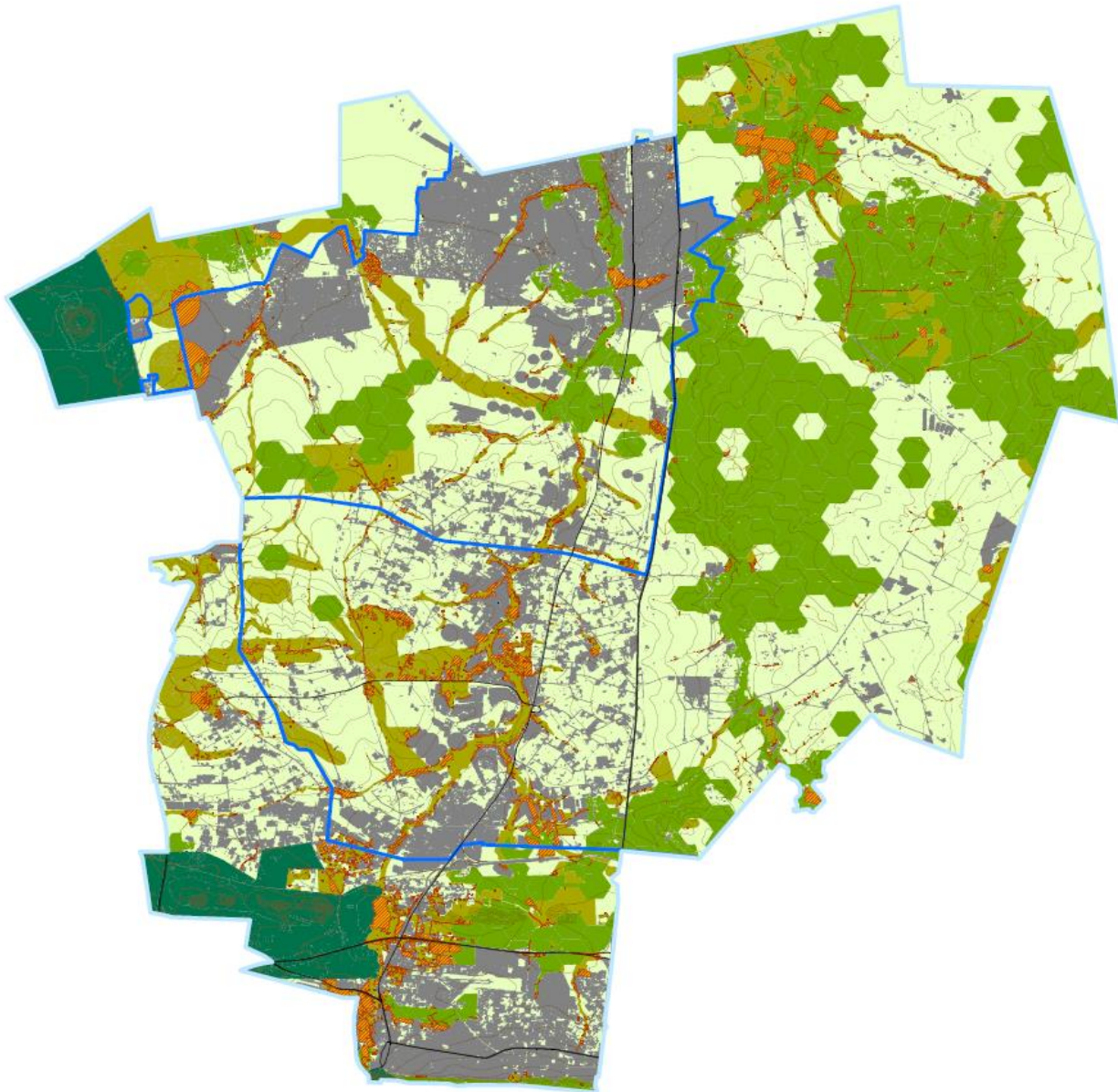
The Biodiversity map and tables must be used as a guideline for land uses management in these areas.

## LAND USE PLANNING GUIDELINES -

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Protected Areas</b>	Formal Protected Areas and Protected Areas pending declaration under NEMPA.	Maintain natural land. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Maintain or obtain formal conservation protection.	Conservation and associated activities.	All other land-uses.
<b>Critical Biodiversity Areas (1)</b>	Areas required to be maintained in a natural or near natural state to meet targets for biodiversity pattern (features) or ecological processes.	Maintain natural land and ecological processes. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Obtain formal conservation protection where possible. Implement appropriate zoning to avoid net loss of intact habitat or intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations with strict control on environmental impacts and carrying capacities, where the overall there is a net biodiversity gain. Extensive Livestock Production with strict control on environmental impacts and carrying capacities. Urban Open Space Systems	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production (all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures). Arable Agriculture (forestry, dry land & irrigated cropping). Small holdings
<b>Critical Biodiversity Area (2)</b>	Cultivated landscapes which retain importance for supporting threatened species	Maintain current agricultural activities. Ensure that land use is not intensified and that activities are managed to minimize impact on threatened species.	Avoid conversion of agricultural land to more intensive land uses which may have a negative impact on threatened species or ecological processes.	Current agricultural practices including arable agriculture, intensive and extensive animal production, as well as game and ecotourism operations, so long as these are managed in a way to ensure populations of threatened species are maintained and the ecological processes which support them are not impacted.	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). More intensive agricultural processes than currently undertaken on site.



Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Ecological Support Areas (1)</b>	Natural, near natural and degraded areas required to be maintained in a ecologically functional state to support Critical Biodiversity Areas.	Maintain ecological processes.	Implement appropriate zoning and land management guidelines to avoid impacting ecological processes. Avoid intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations. Extensive Livestock Production. Urban Open Space Systems. Low density rural residential, smallholdings or resorts where development design and overall development densities allow maintenance of ecological functioning.	Urban land-uses including Residential (including golf estates), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production ( all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures) Arable Agriculture (forestry, dry land & irrigated cropping). Note: Certain elements of these activities could be allowed subject to detailed impact assessment to ensure that developments were designed to maintain overall ecological functioning of ESAs.
<b>Ecological Support Areas (2)</b>	Areas with no natural habitat which retain potential importance for supporting ecological processes.	Avoid additional impacts on ecological processes.	Avoid intensification of land use, which may result in additional impact on ecological processes.	Existing activities ( e.g. arable agriculture) should be maintained, but where possible a transition to less intensive land uses should be favoured.	Any land use or activity which results in additional impacts on ecological functioning, mostly associated with the intensification of land use in these areas (e.g. Change of floodplain from arable agriculture to an urban land use or from recreational fields and parks to urban).
<b>Other Natural Areas</b>	Natural and intact but not required to meet targets, or identified as Critical Biodiversity Areas or Ecological Support Areas.	No management objectives, land management recommendations or land-use guidelines are provided as these areas are outside the ambit of the Bioregional Plan. These areas are nevertheless subject to all applicable town and regional planning guidelines and policy. Where possible existing transformed areas should be favoured for development before "Other natural areas" as before "Other natural areas" may later be required either due to the identification of previously unknown important biodiversity features on these sites, or alternatively where the loss of "Critical Biodiversity Areas" has resulted in the need to identify alternative sites.			
<b>No natural habitat remaining</b>	Transformed or degraded areas which are not required as Ecological Support Areas, including intensive agriculture, urban development, industry; and infrastructure.				



**Legend**

- Region 1
- Municipal Boundary
- Highways
- Urban Edge 2013
- Contours 2013 20m

- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Area 1
- Ecological Support Area 2

- No Natural Remaining
- Other Natural Area
- Protected Area (Formal)
- High Potential Agricultural



Date: 2016/12/13  
Scale: 1:58 000



#### 4.11 WETLAND MANAGEMENT PLAN FOR TSHWANE

This plan has been developed to improve wetland management in the City of Tshwane. Wetlands are critical to the wellbeing of the local economy, communities and individual people and provide a range of advantages for the City of Tshwane.

Wetlands can be regarded as „ecological infrastructure“. They are as important as other types of infrastructure for providing a range of services for residents. As with other forms of infrastructure such as roads, wetlands also require management and maintenance in order to keep them in good condition and functioning well.

Ecosystem services provided by wetlands include: water storage, flood protection, water purification, food, materials, habitat for species, carbon storage, local climate and air quality regulation.

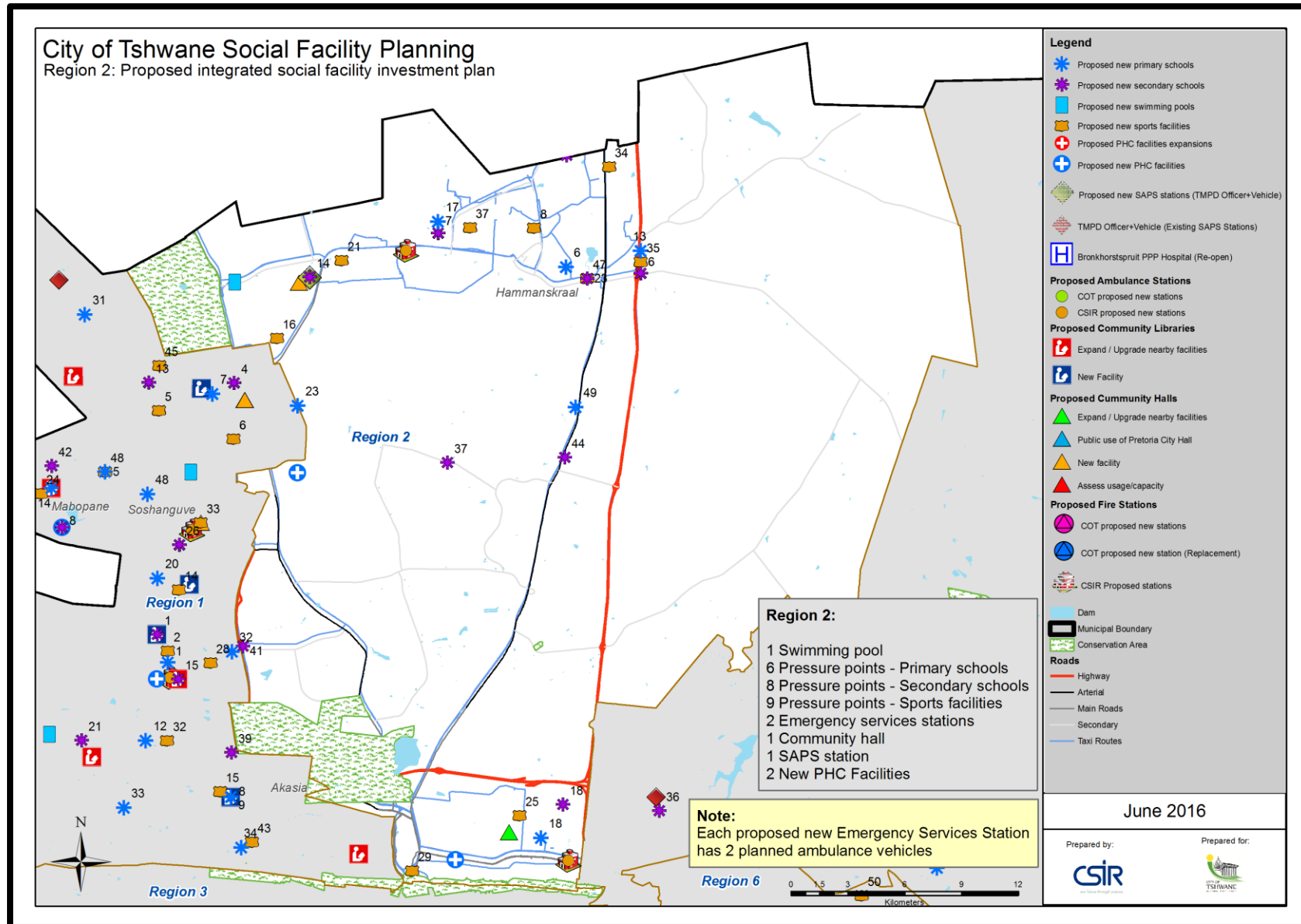
It is important to take note that wetlands benefit all the residents of the City of Tshwane. Although the Municipality is the custodian of wetlands only on municipal properties, all the wetlands supply ecosystem services to all residents.

The goals of the plan are in Region 2 are to ensure that.

1. Wetlands are conserved and protected.
2. In areas where the continuing loss or degradation of wetlands, or their functions, have occurred and/or reached critical levels, wetlands are rehabilitated or enhanced.
3. All departments are aware of the importance of wetlands
4. the functions wetlands are recognised in resource planning, management and economic decision-making with regard to all programmes, policies and activities within the City of Tshwane.
5. Local communities collaborate in wetland management.







#### 4.12 SOCIAL FACILITY PLANNING

From a spatial or location perspective, the clustering of parks and social facilities in and around corridors and other points of highest accessibility (such as major transport facilities) is of vital importance.

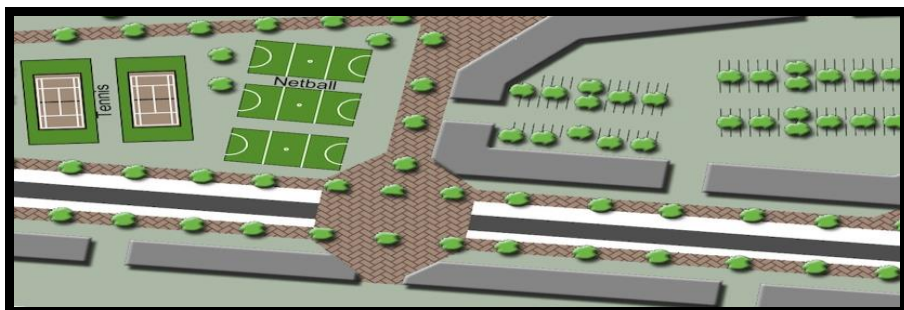
Different social facilities such as schools, clinics, play points, library's, active open space and other should be clustered at one central point in the residential neighbourhood and should be accessible in terms of public transport.

Public space and specifically Municipal owned property should be kept in reserve as the need for social facilities increase. Open green space should not be privatised. Existing open spaces and parks must be protected and not used for development purposes

The focus should be to encourage community and stakeholder collaboration; and retain, enhance and encourage cultural assets.

Neighbourhood amenities must be provided as densification takes place.

Where neighbourhoods lack sufficient open space, new parks and recreation areas must be introduced, especially in areas earmarked for higher density development. Activity Support is the presence of activity planned for the space. Development designs should locate plazas, for example, in places where they are most likely to be used for gatherings (both organized events and informal meetings).



#### Educational Facility's needed in Region 2

Primary schools identified pressure points and their attracted population / demand – Region 2			
Pressure point identifier	Attracted population	Facility equivalent	Suburb / Sub-place
6	5 523	An equivalent to 5 schools of 1000 pupils	Temba
13	2 607	An equivalent to 2 schools of 1000 pupils	Mandela Village
17	1 626	An equivalent to 1 school of 1000 pupils	Dilopye
18	1 604	An equivalent to 1 school of 1000 pupils	Montana
23	1 205	An equivalent to 1 school of 1000 pupils	Soshanguve X
49	153	Consider expansion of the nearest school	Spykerras

Secondary schools identified pressure points and their attracted population / demand – Region 2			
Pressure point identifier	Attracted population	Facility equivalent	Suburb / Sub-place
6	3 253	Equivalent of 3 secondary schools of 1000 pupils	Mandela Village
7	3 000	Equivalent of 3 secondary schools of 1000 pupils	Dilopye
14	1 943	Equivalent of 2 secondary schools of 1000 pupils	Stinkwater
18	1 291	Equivalent of 1 secondary schools of 1000 pupils	Mondustria
23	990	Equivalent of 1 secondary schools of less than 1000 pupils	Hammanskraal

## PART FIVE: DETAIL PRECINCT PLANS

### 5.1 EXISTING PRECINCT PLANS

Previously a number of precinct plans and policies have been developed for areas within the region which are in line with the CDS and MSDF. The following list of policies and plans with their main proposals are included as part of this framework.

#### 5.1.1 Pretoria North Spatial Development Framework, 2006

The City of Tshwane prepared a Spatial Development Framework (SDF) the Pretoria North Central Business Area (CBD). The aim of the study was to focus on trends and future development within the CBD area.

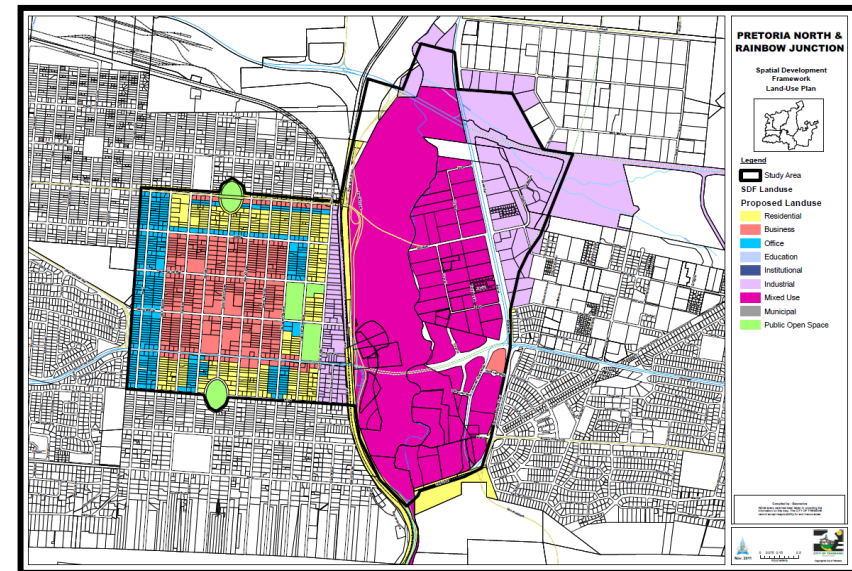
While the Spatial Development Framework provides a guideline for future expansion of land uses within the Municipality, it shall not restrict development which, by reason of need or its desirability (in the public interest) can be proven to contribute towards the co-ordinated, sustainable and harmonious development of the area.

The Pretoria North/Rainbow Junction areas have been identified as an Metropolitan Core in Terms of the Metropolitan Development Framework. An Metropolitan Core is characterised in terms of their mixed land use character that developed over time. These areas develop as a network of activities, and are very important on a Metropolitan level.

Due to various market related aspects, and proposed developments such as the proposed Rainbow Junction Development, the Pretoria North area has suddenly become under pressure for development at greater intensities than is currently permitted in terms of policy.

Other planning initiatives of strategic importance were launched with possible impacts on the study area. These include the proposed upgrading of the Pretoria North station as part of the inter modal facility for the proposed Rainbow Junction, as well as the proposed K14 road linking Zambezi drive with Rachel de Beer street.

Urban Development is dynamic and therefore constantly changing in a response to the mobility of the population and market forces. The need was identified to prepare a Spatial Development Framework taking into account the current residential quality, the existing business component and the strategic importance of other planning initiatives.



The following control measures can be seen as the key measures:

Strict planning controls on rezoning / business applications applies and is enforced according to the guidelines in this plan;  
No further business or office style development allowed south of Rachel de Beer outside of the Burger Street precinct. Strict enforcement of current Town Planning Scheme on defaulters in this area;  
Proposed Rainbow Junction Development is accepted with deliberate intervention guiding the basket of land-uses complimenting and supporting



the existing land-uses in Pretoria North CBD. Interconnection of the two areas via Gerrit Maritz Street is imperative, meaning that a bridge or subway has to be constructed across or underneath the Metro railway tracks parallel to the construction of the Rainbow Junction; Residential densities policy relaxed and allows for and higher units per hectare density by default on merit basis.

Pretoria North forms part of the Pretoria North / Rainbow junction metropolitan node. The Pretoria North node is bordered by President Steyn on the north, Brits road on the south, Paul Kruger on the east and Daan de Wet Nel on the west.

Pretoria North CBD is one of the two Metropolitan Node within Region 1. For the last few years the traditional importance of Pretoria North CBD has been eroded by the development of centres such as Wonderpark and Wonderboom shopping centres.

The Bakwena/N4/PWV2 highway notably increased east-west access to the Pretoria North CBD. The area is supported by different mode of transport: buses, trains and taxis. There are two passenger stations situated in Pretoria North (Wonderboom and Pretoria North Stations)

The Pretoria North CBD comprises of motor trade and related uses; businesses; retail, commercial, industries; schools and educational facilities and residential properties. Most prevalent in the CBD are businesses, retail and commercial uses.

The Rainbow Junction development will consist of business/office parks, education/training facilities, and an automotive node. Further the central precinct will consist of large destination and regional retail-centric node, integrated with hotels, conference facilities, offices, world-class cultural opportunities and residential apartments flowing into vibrant public spaces. The northern precinct will consist of urban village lifestyle and high-street energy, green building campus opportunities, business park, convenience retail and residential with complementary facilities.

The BRT will run through the south western part of the Rainbow Junction precinct and then run in a western direction through Pretoria North as indicated on the framework.



The northern precinct will consist of urban village lifestyle and high-street energy, green building campus opportunities, business park, convenience retail and residential with complementary facilities. The densification is aimed at creating a sense of connectivity and balance in relation to the variety of uses within the area. Industrial trend also prevalent and supported on the properties bordering the station and BRT station.



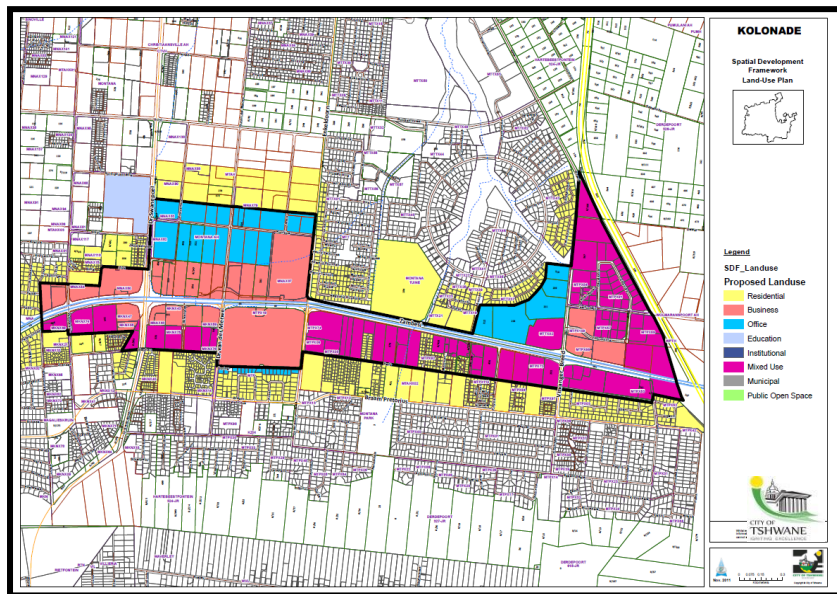


### 5.1.2 KOLONNADE METROPOLITAN NODE

The Kolonnade node is indicated in the MSDF as a Metropolitan Node and forms part of the multi-nodal structure of the metropolitan area. It functions as a regional node.

The node is an existing mixed use land use node that is characterised mainly by linear development along Sefako Makgatho Drive. The node has a strong retail, commercial and motor service component. The Kolonnade shopping centre is the most dominant centre within the node with a well established tenant mix including attractive entertainment facilities. This centre is currently in the order of 145 000 m<sup>2</sup> in size.

The office component in the node is limited; therefore there is an opportunity for expansion of office development. The importance of the node is further emphasized by the fact that it forms part of the Zone of choice and that Sefako Makgatho Drive is earmarked as a future BRT route. Residential densification is supported in and around the node because it will further enhance the development of the node.



### 5.1.3 Regional Spatial Framework For Hammanskraal And Northern Cross Border Area Of The City Of Tshwane (2005)

The Hammanskraal node is indicated in the MSDF as a Urban Core. This node is the focus of public led investment in social and community facilities. More detail regarding the node is provided in the Local Spatial Development Framework for the northern area.

The node is an existing mixed use land use node that is characterised by linear developments along Old Warmbaths, Hamman, Harry Gwala Road (D2757) and Jubilee Road. The node comprises of retail, commercial, education, residential and institutional. The Jubilee Mall is now the most dominant centre within the node with a well-established tenant. This centre is currently in the order of 30 000 m<sup>2</sup> in size. (50 000m<sup>2</sup> was approved)

The importance of the node is further emphasized by the fact that it is a major economic node that serves the Hammanskraal area and its surroundings. Residential densification in and around the node will further enhance the growth of the node.

The CoT inherited these areas from the former Temba TRC. Tshwane has as its main objective the formalisation of these towns and settlements; the provision of proper infrastructure to serve these communities; and eradicating the service backlogs in the area. In order to do this, it is necessary to design an overall development framework for the area which sets certain guidelines and parameters within which the future development should take place.

The Regional Spatial Framework for Hammanskraal and the Northern Cross Border Area of the City of Tshwane (2005) identified two important environmental features adjacent to the study area which could play a significant role towards the economic development of the region. These are:

- The Tswaing Crater and nature reserve to the west.
- The Dinokeng Nature/ Game Reserve to the east.

Activity nodes are distributed along the NW224 in an east-west direction and further follow the K97 and railway line in a north-south direction. The nodes indicated on the Regional Spatial Development Framework include:

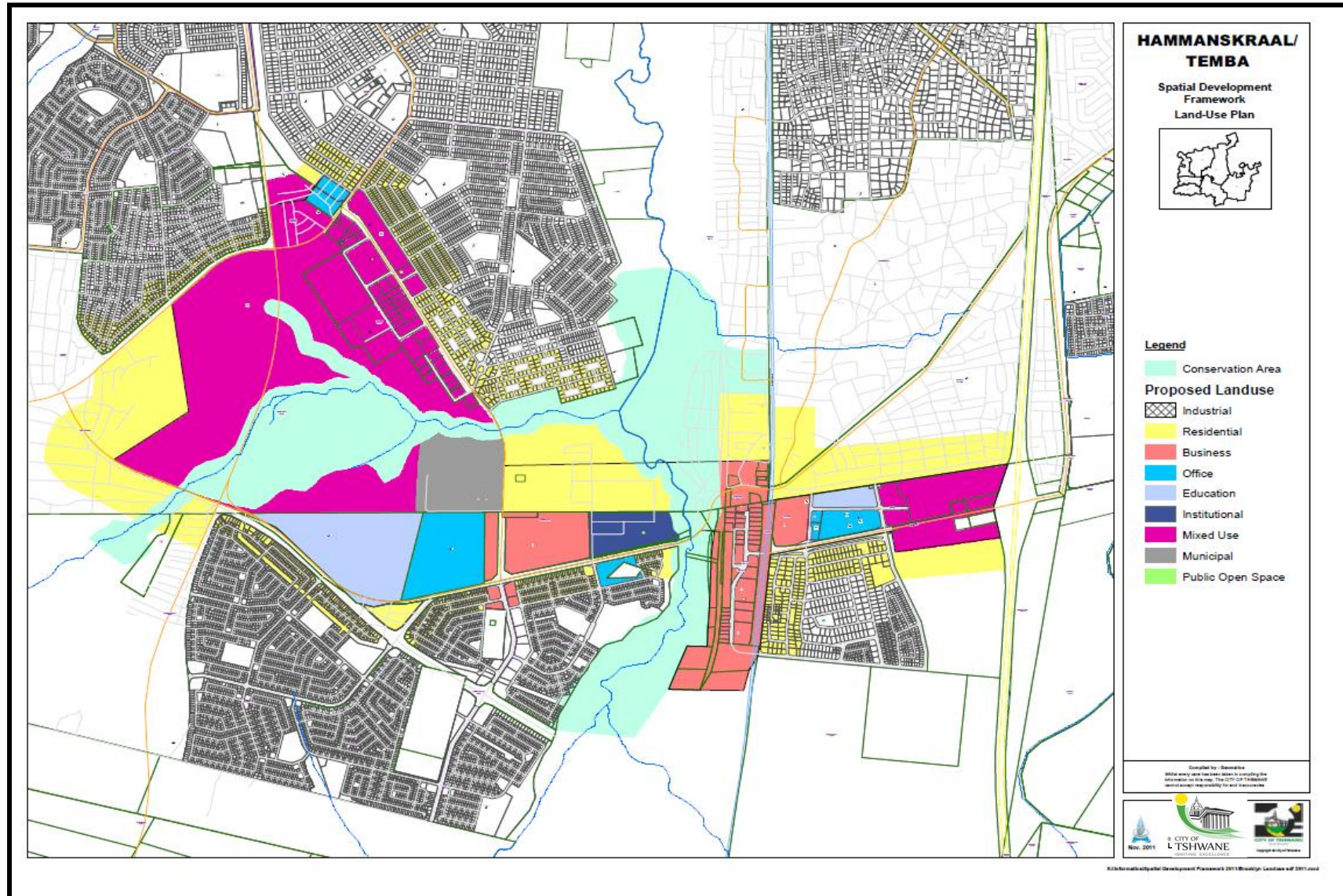
- The Babelegi industrial area is the most northern activity area. It is essential to revitalise industrial activity within this area.
- The second activity node is around the Hammanskraal Railway station and is currently the main economic activity node within the study area.
- A third activity node is proposed for the intersection between the future K224/NW224 and K97 roads. This node may eventually form a functional unit with the Hammanskraal station node.
- A fourth potential activity node is situated further south in the vicinity of the future K212/K97 intersection and could attract significant economic activity.
- The NW224 will serve as a central activity axis to the study area. It includes the activity node representing linear development in the vicinity of Stinkwater and the existing route.

- The central part of Temba currently holds a variety of institutional uses and is a point of convergence to a large number of important regional routes. This is the most important activity node within the study area.

With regards to residential development it is proposed that the southern parts of the study area be utilised for future residential development. The area between route K212 and route NW224 must be seen as a priority area for this purpose.

A Regional Cemetery of  $\pm 200$ ha will be established on the farm Sterkwater 106-JR, south east of Stinkwater.

The detail proposals contained in this framework should be used as a guide in considering development applications in the area.





## HAMMANSKRAAL NODE DEVELOPMENT CONCEPT

The first phase of the framework will focus on the following:

- Construction of pedestrian walkways in the Hammanskraal CBD and the Government/Thusong Services and Hammaskraal Sports

Precinct. The project will include construction of walkways; bus bays; and street-lighting.

- Construction of pedestrian bridge across route R101 with informal trade stalls at the two ends along route R101. The project will include construction of pedestrian bridge; construction of walkways in the CBD along Douglas Rens and construction of traders shelters.

## 5.2 REQUIRED PRECINCT PLANS (NON-PRIORITISED)

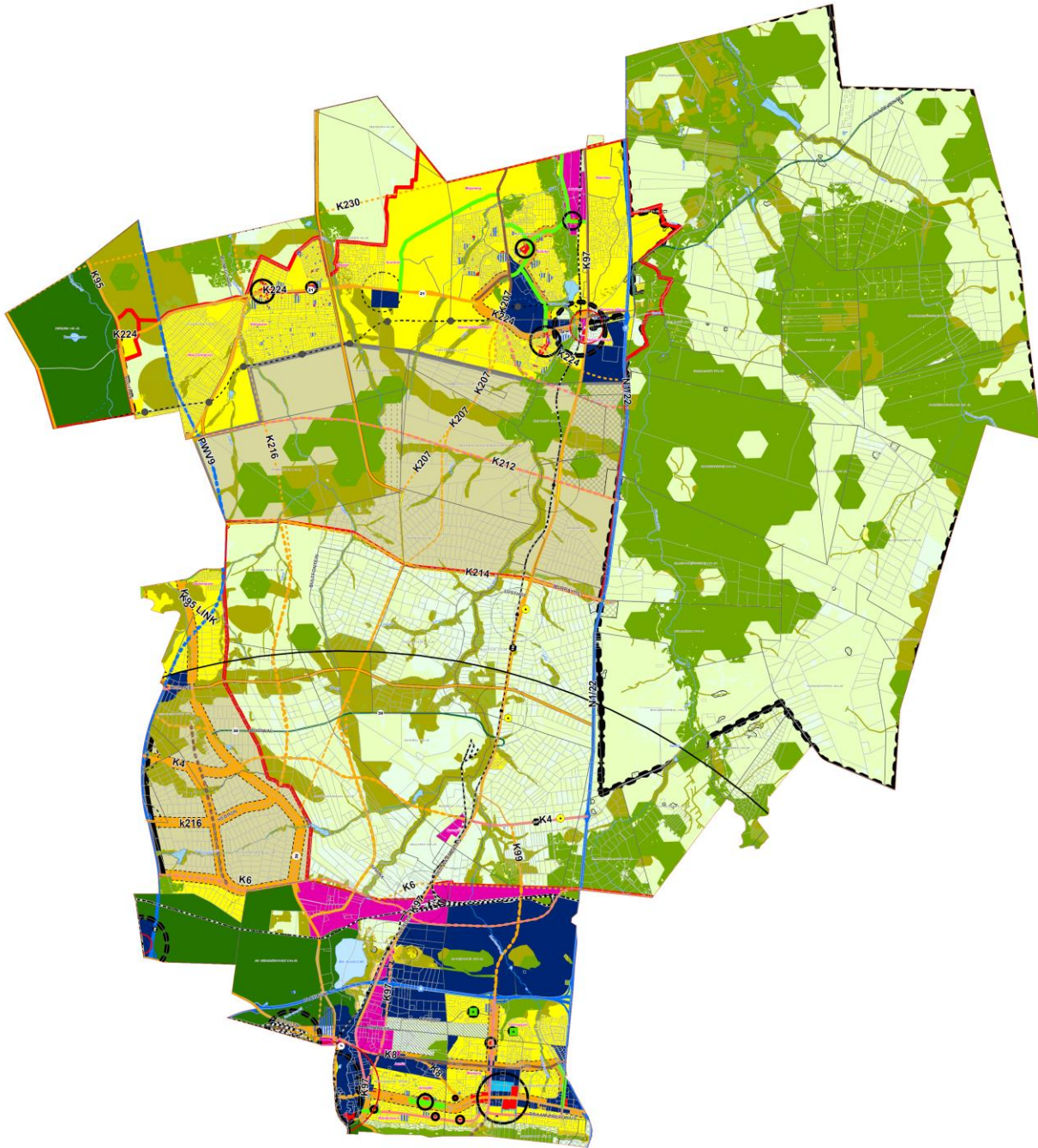
The following are precinct plans that are required to guide the development of specific precincts within the Region. It includes:

- Development Plan for the Future Urban Development Area in the west of the Region
- Development Guidelines and access management along Activity Spines and Streets in the Region.
- Spatial Development Framework along the N1

## 5.3 PLANNING POLICY RATIONALISATION

Spatial Policy	Status	Approval Date	Purpose	Changes in planning Context	Proposed Future of Plan
Pretoria North Spatial Development Framework	Approved	10 October 2008	Densification	Re-planning with Rainbow Junction and BRT influence	Withdrawn and replaced by RSDF 2017: See 5.1.1
Strategic Land Use Framework Plan for Planning Zone P1	Approved	3 December 2002	Strategic Land Use Framework		Withdrawn and replaced by RSDF 2017 and ZOC LSDF

## Region 2

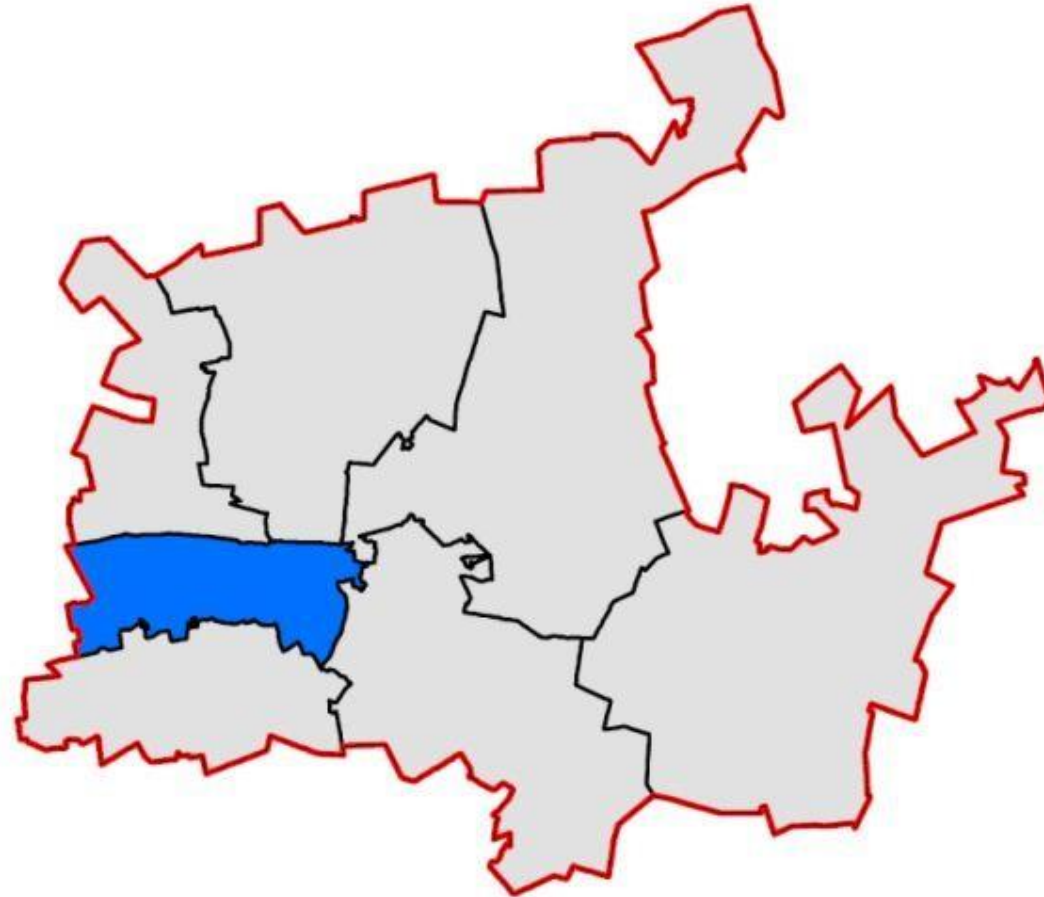


- |   |  |   |   |  |   |   |   |   |  |   |  |
|---|--|---|---|--|---|---|---|---|--|---|--|
| <b>Legend</b><br><b>Density</b><br><ul style="list-style-type: none"> <li>Transit Zone</li> <li>Local Nodes</li> <li>Transport Orientated Development</li> <li>Transport Corridor (BRT phase 1)</li> <li>500m Walking Distance (200ha)</li> <li>700m Walking Distance (120ha)</li> <li>Linear Zone</li> <li>High Density</li> <li>Suburban Density</li> <li>Low Density Zone</li> </ul> | <ul style="list-style-type: none"> <li>Main Rural Roads</li> <li>Game / Nature Reserves</li> <li>High Potential Agriculture</li> <li>Sensitivity Protective Areas</li> <li>Development Edge</li> <li>Future Urban Development Areas</li> <li>Community Service Centre</li> <li>Biodiversity Zone</li> <li>Rural</li> </ul> | <b>Land-Use</b><br><ul style="list-style-type: none"> <li>Cemetery</li> <li>Mixed Uses</li> <li>Office</li> <li>Airport</li> <li>Campus</li> <li>Future Nodes</li> <li>Future Regional Cemetery</li> <li>Retail</li> <li>Educational</li> <li>Mining</li> </ul> | <ul style="list-style-type: none"> <li>Water Shed / Development Edge</li> <li>Urban Edge 2013</li> <li>CBD 25 km Radius</li> <li>Proposed IRPTN</li> <li>Railway</li> <li>Proposed Railway</li> <li>Proposed Station</li> <li>Landfill</li> </ul> | <b>CBA Categories</b><br><ul style="list-style-type: none"> <li>Critical Biodiversity Area 1</li> <li>Critical Biodiversity Area 2</li> <li>Ecological Support Area 1</li> <li>Ecological Support Area 2</li> <li>Other Natural Area</li> <li>Protected Area (Formal)</li> </ul> | <b>Community Service Centres</b><br><ul style="list-style-type: none"> <li>Community Service Centre</li> <li>Human Settlement</li> <li>Proposed Rural Service Centre</li> <li>Rural Service Centre</li> </ul> | <b>Highways</b><br><ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> | <b>Roads Masterplan CLASS</b><br><ul style="list-style-type: none"> <li>U1 Class 1_Primary metropolitan distributor</li> <li>U2 Class 2_Metropolitan distributor</li> <li>U3/A Class 3/A_District distributor</li> <li>U3 Class 3_District distributor</li> </ul> | <b>Activity Spine</b><br><ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> | <b>Activity Street</b><br><ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> | <b>Mobility Spine</b><br><ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> | <b>Mobility Road</b><br><ul style="list-style-type: none"> <li>Existing</li> <li>Proposed</li> </ul> |
|---|--|---|---|--|---|---|---|---|--|---|--|

## 6. REFERENCES

- Cities Network, **Developing a Collective approach to Mixed- Use Development in Transit – Oriented Development Precincts**, June 2016.
- City of Tshwane, **Comprehensive Integrated Transport Plan 2015 - 2020**, June 2016.
- City of Tshwane, **Integrated Development Plan Region 2 2015/16**.
- City of Tshwane, **Rapid Transit (TRT): Spatial Development Policy: Densification and Intensification Guidelines**, March 2014.
- City of Tshwane, **Streetscape Design Guidelines**, August 2007.
- City of Tshwane, **Draft Streetscape Design Guidelines**, August 2013.
- City of Tshwane, **Tshwane MSDF 2012**, June 2012.
- City of Tshwane, **Tshwane RSDF 2013**, March 2014.
- City of Tshwane, **Wetland Management Plan**, March 2016.
- City of Tshwane, **Vulnerability Assessment to Climate Change**, September 2015.
- Gauteng Province, **Gauteng Spatial Development Framework: 2011**.
- Gauteng Province, **Gauteng 25 Year Integrated Transport master Plan** : November 2013
- ITPD, **The Transit Orientated Development Standard**, New York, 2015.
- RSA, **National Development Plan: 2030**, National Planning Commission. 2013
- RSA, **Spatial Planning and Land Use Management Act**, 16 of 2013.
- RSA, **National Department of Agriculture, Norms and Standards for Land uses Change**: 2016
- World Bank, **Transforming Cities with Transit: Transit and Land use Integration for Sustainable urban Development**, January 2013.

## SPATIAL DEVELOPMENT FRAMEWORK 2017: REGION 3





## TABLE OF CONTENTS

<b>ABBREVIATIONS</b>	1	2.5 ENVIRONMENTAL STRUCTURING CONCEPT	26
<b>GLOSSARY OF TERMS</b>	2	2.5.1 Heritage and Cultural Sites	26
<b>PART ONE: INTRODUCTION</b>	6	2.5.2 Open Space and Conservation Areas	26
1.1 BACKGROUND	6	2.5.3 Rural Management	28
1.2 LEGISLATIVE FRAMEWORK	6	<b>PART THREE: REGIONAL ANALYSIS</b>	
1.3 APPROACH AND METHODOLOGY	7	3.1 LOCALITY	31
1.4 THE USE OF THIS DOCUMENT	7	3.2 AREA	31
<b>PART TWO: METROPOLITAN CONTEXT</b>	9	3.3 DEMOGRAPHIC INFO	32
2.1 POLICY FRAMEWORK	9	3.4 WARD PRIORITIES FOR 2015/16	34
2.1.1 National Development Plan: 2014	9	3.5 REGIONAL CHARACTERISTICS	34
2.1.2 Gauteng Spatial Development Framework: 2011	10	3.6 STRUCTURING ELEMENTS	35
2.1.3 Gauteng 25 Year Integrated Transport Master Plan: 2013	11	3.7 ECONOMIC BASE	36
2.1.4 The Spatial Vision of the City	12	3.8 PHYSICAL ENVIRONMENT	36
2.1.5 Metropolitan Spatial Development Framework	13	3.8.1 Natural Structuring Elements	36
2.1.6 Tshwane Integrated Rapid Public Transport Network (IRPTN) Strategy	13	3.8.2 Nodes	37
2.1.7 Tshwane Comprehensive Integrated Transport Plan (CITP)	13	3.8.3 Linear Activity Areas	38
2.2 THE CITY STRUCTURE	15	3.8.4 Residential	38
2.2.1 Hierarchy of Nodes	15	3.8.5 Movement and Transport System	39
2.2.2 Specialised Activity Areas	16	3.8.6 Service Infrastructure	40
2.3 GROWTH MANAGEMENT	18	3.9 KEY ISSUES AND S.W.O.T ANALYSIS	40
2.3.1 Urban Edge	18	3.9.1 Strengths	40
2.3.2 Tshwane Retail Strategy	18	3.9.2 Weaknesses	40
2.3.3 Retail in Urban Cores	19	3.9.3 Opportunities	41
2.4 MOVEMENT AND CONNECTIVITY	20	3.9.4 Threats	42
2.4.1 Urban Form and Transport Integration	20	3.9.5 Role and Function	42
2.4.2 The Basis of an Efficient Metropolitan Movement System in Tshwane	22	3.10 DEVELOPMENT TRENDS WITHIN REGION 3	42
		<b>PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK</b>	
		4.1 INTRODUCTION	44

4.2	IMPROVE ACCESS AND LINKAGES	44	4.15.5	Management Zones	82
4.3	IMPROVE THE PROVISION OF SOCIAL SERVICES	44	4.15.6	Agricultural High Potential Areas/Biodiversity Zone	82
4.4	BROADEN RANGE OF HOUSING TYPOLOGIES AND UPGRADING OF RESIDENTIAL AREAS	44	4.15.7	Sensitive Protected Areas/Biodiversity Zone	82
4.5	CONSERVATION	45	4.15.8	Sensitive Ridge Areas	83
4.6	GEOLOGY	45	4.15.9	Heritage and Cultural Protected Areas	83
4.7	METROPOLITAN NODES/TRANSPORT ORIENTATED DEVELOPMENT NODES (TOD)	46	4.15.10	Tourism Potential Places/Areas	83
4.7.1	Capital Core – Inner City	47	4.15.11	Conservancies	83
4.7.2	Brooklyn Metropolitan Node	47	4.15.12	Game and Nature Reserves	84
4.7.3	Hatfield Metropolitan Node	48	4.15.13	Mines and Places of Manufacturing	84
4.7.4	Saulsville Urban Core	48	4.15.14	Human Settlements	84
4.7.5	Menlyn Metropolitan Node	48	4.15.15	Community Service Centres	84
4.8	REGIONAL / LOCAL / SPECIALISED NODES	48	4.16	OPEN SPACE AND ENVIRONMENTAL AREAS	86
4.9	JOB OPPORTUNITY / MIXED USE AREAS	50	4.17	WETLAND MANAGEMENT PLAN FOR TSWANE	90
4.10	FUNCTIONAL ROAD CLASIFICATION AND ACTIVITY MATRIX	51	4.18	SOCIAL FACILITY PLANNING	91
4.11	DEVELOPMENT GUIDELINES	61	<b>PART FIVE: DETAIL PRECINCT PLANS</b>		93
4.12	RESIDENTIAL	67	5.1	EXISTING PRECINCT PLANS	93
4.12.1	Concentration Zones	69	5.1.1	Tshwane Inner City Development Strategy	93
4.12.2	Linear Zones (Corridors and Spines)	71	5.1.2	Pretoria Inner City Spatial Development Framework	94
4.12.3	Suburban Densification Zones	72	5.1.3	Tshwane Inner City Project (Re Kgabisa Tshwane)	95
4.12.4	Low Density Zones	73	5.1.4	Arcadia Street Spatial Development Framework	95
4.12.5	Rural Divisions	74	5.1.5	Groenkloof Spatial Development Framework	95
4.13	HUMAN SETTLEMENTS	74	5.1.6	Draft Brooklyn Node Spatial Development Framework	95
4.13.1	Informal Settlement Upgrades and Relocation	74	5.1.7	Draft Hatfield Spatial Development Framework	98
4.13.2	Social Housing	74	5.1.8	Draft Colbyn Development Framework	107
4.14	MOVEMENT SYSTEM	77	5.1.9	Saulsville Node	107
4.14.1	Highway Planning Projects of a Strategic Nature	77	5.1.10	Maximum residential densification for specific suburbs	108
4.14.2	Rail	77	5.1.11	Integrated Compaction and Densification Strategy for Pretoria West Residential Precincts	108
4.14.3	Road network	78	5.1.12	Menlyn Node Plan	108
4.14.4	Bus Rapid Transit (IRPTN System)	78	5.2	REQUIRED PRECINCT PLANS (NON-PRIORITISED)	110
4.15	RURAL AREAS	80	5.3	PLANNING POLICY RATIONALISATION	111
4.15.1	Major Rural Roads	80	<b>PART SIX: REFERENCES</b>		112
4.15.2	Urban Edge	80			
4.15.3	Development Edge	80			
4.15.4	Future Urban Development Areas	81			

## ABBREVIATIONS

### BRT

- Bus Rapid Transit

### CBD

- Central Business District

### CDS

- City Development Strategy

### COT

- City of Tshwane

### EMF

- Environmental Management Framework

### GLA

- Gross Leasable Area

### GSDF

- Gauteng Spatial Development Framework

### GITP

- Gauteng 25-Year Integrated Transport Master Plan

### IDF

- Integrated Development Framework

### IDP

- Integrated Development Plan

### ITP

- Integrated Transport Plan

### LSDF

- Local Spatial Development framework

### MSDF

- Metropolitan Spatial Development Framework

### NDF

- National Development Plan, Vision for 2030.

### NMT

- No Motorized Transport

### UP

- University of Pretoria

### RSDF

- Regional Spatial Development Framework

### SDF

- Spatial Development Framework

### SPLUMA

- Spatial Planning and Land Use Management Act, 16 of 2013.

### SPTN

- Strategic Public Transport Network

### TOSF

- Tshwane Open Space Framework

### ZOC

- As per CDS: Zone of Choice

## GLOSSARY OF TERMS

---

### ACTIVITY NODES

- Areas of concentration of mixed land-uses.

### ACTIVITY SPINES

- Mobility routes connect a number of nodes or mixed use areas, serving as the main public transport channels of the region. These routes could support linear development although not necessarily continuous along its length. Higher order land uses should be accommodated in the nodes, but lower order land uses could develop in a linear fashion subject to alternative access opportunities. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes.

### ACTIVITY STREETS

- Local collector roads supporting lower order land uses in a linear fashion along its length. Direct access to land uses is provided compromising mobility for activity. Development along activity streets should be permitted in accordance with a local spatial development framework.

### CAPITAL CORE

- The Tshwane Inner city is identified as the Capital Core as it is the city's first order node amongst all metropolitan nodes. Traditionally, the inner city is also the Central Business District (CBD) of major cities. Tshwane is no different.
- Historically, the inner city was the geographical heart and center of what is now the Tshwane area. Over time, though, due to the extension of the Tshwane boundaries, the Inner City is no longer geographically central, but still plays a very important role with regard to the concentration of retail, office and government buildings to be found in the area.
- The Capital Core must:
  - Be the focal point for housing government departments
  - Be developed to a higher than average density, supporting all principles of smart growth.

### CITY OF TSHWANE LAND USE MANAGEMENT BY-LAW

- To give effect to "Municipal Planning" as contemplated in the Constitution of the Republic of South Africa, 1996, and in so doing to lay down and consolidate processes and procedures, to facilitate and make arrangements for the implementation of land development and land development applications, spatial planning and a Land Use Scheme within the jurisdiction of the City of Tshwane, in line with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013), to provide for the processes and procedures of a Municipal Planning and Appeals Tribunal and to provide for matters incidental thereto.

### COMPACT

- Compact urban form increases efficiency in the way people can use the city and in the way the city is managed. More people live in a smaller area in a compact city and this higher density allows for efficient provision of public transport, social and other services. The opposite of a compact city is urban sprawl.

### CONCENTRATION ZONES

- The Concentration Zones are the primary focus areas for high density, medium to high-rise residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

### COT

- City of Tshwane.

### DENSIFICATION

- Increase of residential density following the guidelines of the Compaction and Densification Strategy, May 2005.

### EMERGING NODES

- Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realization of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

#### INDUSTRIAL USES

- As referred to on the framework plans includes: light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

#### INFILL

- The development of undeveloped or underdeveloped land within a developed urban area with infrastructure available.

#### INNER CITY

- An area in the City of Tshwane comprising the Pretoria Central Business District and surrounding residential areas.

#### INTENSIFICATION

- The process of intensifying activities or land use by increasing floor area, height or number of activities.

#### LIVEABLE STREETS

- Liveable Streets are defined as streets for everyone that are planned, designed and operated to enable a network of safe access for all users including pedestrians, bicyclists and transit riders.

#### LINEAR ZONES

- As per Compaction and Densification Strategy referring to activity spines and linear channels forming a lattice of movement.

#### LOWER ORDER LAND USES

- Land uses that are not usually associated with high impact on the surrounding environment and with low traffic generating characteristics.

#### METROPOLITAN NODES

- These are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the Tshwane context, Metropolitan nodes are those nodes within the City (economically) benefiting primarily from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment.
- Such localities are also where the most extensive land use rights, including densities, are likely to be supported, in line with the growth management strategy.

#### MIXED USES

- Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional etc. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. Mixed-uses may refer to retail at street level, institutional on the floor above and residential on the upper floors, or only one use per erf. Principles regarding retail, commercial and industrial uses/rights are still applicable as indicated in this document. Mixed uses in an industrial area may include industry, commercial and retail uses.

#### NODES

- A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport facilities such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed uses development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and their significance within the city.

#### OFFICE USES

- These areas may accommodate land uses such as offices, retail industries, small places of refreshment, fitness centres, hairdressers, nail bars, medical consulting rooms, medical workshops such as a dental technician, prosthetist, orthotist, pathologists, optometrist technician and other businesses such as a beauty salon, pet salon,

beauty/health spa, funeral undertaker, place of instruction and uses subservient to the main use. Land uses will be considered on merit, shall be compatible to the surrounding area and shall focus on serving the local community.

#### PUBLIC TRANSPORT FACILITIES

- Including train stations, taxi and bus facilities with ancillary uses.

#### SPLUMA

- Spatial Planning and Land Use Management Act (Act 16 of 2013).

#### SUBURBAN DENSIFICATION

- As per Densification and Compaction Strategy: Residential densification in areas that are not located in concentration zones or along linear development spines.

#### SUSTAINABLE DEVELOPMENT

- Development that has integrated social, economic and environmental factors into planning, implementation and decision-making, so as to ensure that it serves present and future generations (in terms of SPLUMA objectives)

#### SUSTAINABLE HUMAN SETTLEMENTS

- The term 'sustainable human settlement' refers to a spatial concept that has two areas of emphasis: 1) human 2) sustainable (in terms of SPLUMA Principles) "The human-centred approach emphasises that a central purpose of planning is to ensure that the developmental needs and activities of people living in settlements are catered for and, in particular, that opportunities for people to achieve their full potential are maximised through their own efforts. This approach, rather than being purely cost- or technology-driven, is people-driven and democratic". It makes such settlements socially, politically and economically sustainable. But there is also the dimension of environmental sustainability.

#### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)

- Transport-orientated development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (i.e. a train station, metro station, BRT station, or taxi rank, bus terminus surrounded by relatively high-density development with progressively

lower-density development spreading outward from the centre. TOD's are generally located within a radius of 500 to 900 m from a transit stop, as this is considered to be a convenient distance for pedestrians.

#### TRANSPORT CORRIDORS

- For the purpose of this RSDF these routes are defined as the approved BRT routes within Region 3. They are regarded as the main public transport channels of the region, which implies the prioritising of public transport and non-motorised transport over private transport. Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate. Densification along these corridors should be encouraged to maximise the public transport opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.

#### URBAN CORES

- Former township areas were developed as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to metropolitan nodes. The Neighbourhood Development Programme Grant (NDPG) is a nationally funded programme that aims to address the improved quality of environment in urban cores.



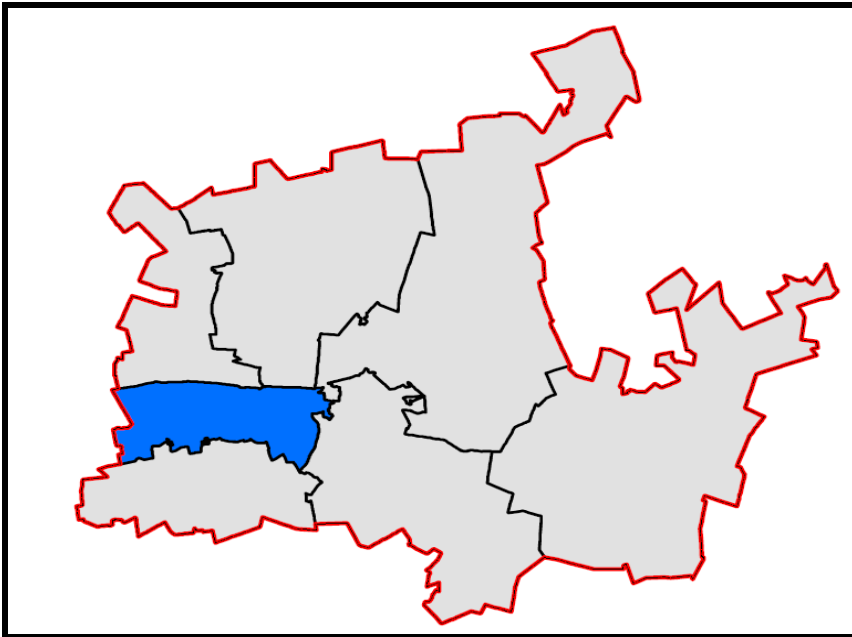
## 1. PART 1: INTRODUCTION

### 1.1 BACKGROUND

The City of Tshwane (COT) embarked on processes to compile seven Regional Spatial Development Frameworks (RSDF's) for the administrative planning regions of the metropolitan area in 2011.

The RSDF's needed to be inter-linked and also support the Tshwane Metropolitan Spatial Development Framework (MSDF) as well as the Tshwane City Development Strategy (CDS), Tshwane Compaction and Densification Strategy (2005) and the Tshwane Open Space Framework (TOSF).

This RSDF for Region 3 was therefore prepared within the context of the MSDF, the CDS and in support of the other RSDF's.



### 1.2 LEGISLATIVE FRAMEWORK

- The MSA (Municipal Systems Act, 2000 (Act 32 of 2000)) determines that a municipality must adopt a framework for integrated development in its area in the form of an Integrated Development Plan (IDP) (Section 27).
- A Spatial Development Framework, which guides and informs all development forms part of the IDP (Section 35 (2)).
- The Gauteng Planning and Development Act, 2003 (Act 3 of 2003) determines that municipalities must formulate spatial development frameworks for their areas (Section 31 and 32).
- The content of these plans “shall be in the form of maps or a map together with explanatory report of the desired spatial form of the municipality”.

A Spatial Development Framework must:

- Indicate where public and private development infrastructure investment should take place.
- Indicate desired development and land use patterns for different areas.
- Indicate where development of particular land uses should be discouraged or restricted.
- Provide broad indication of the areas where priority spending should take place.
- Provide guidelines for development and land use decision-making by the municipality.

This Regional Spatial Development Framework was prepared in accordance with the above mentioned provisions.



### 1.3 APPROACH AND METHODOLOGY

The approach to the preparation of the RSDF was based on the following approved policies and plans:

- National Development Plan, 2014
- Gauteng Spatial Development Framework, 2011.
- Gauteng 25-year integrated Transport Master Plan, 2013
- The MSDF objectives, vision and supporting strategies as well as development issues were used to inform the role and function of the region (MSDF, 2012).
- City of Tshwane Rapid Transit (TRT): Spatial Development Policy: Densification and Intensification Guidelines, 2014.
- The City of Tshwane Comprehensive Integrated Transport Plan, 2016.
- The City of Tshwane Bioregional Plan, 2016.

The framework was also based on best practices applied internationally on the development of MSDF / RSDF. See references used at the end of the document in the compilation of the framework. Further this framework has been compiled inter alia in terms of the relevant provincial legislation and the Spatial Planning and Land Use Management Act (Act 16 of 2013).

The RSDF 2017: Region 3 was prepared in accordance with the following mentioned principles:

- Indicate where densification should take place and promote economic and social inclusion. (SPLUMA, Objectives and Principles 7(a)).
- Indicate how urban regeneration should take place in the Region in order to stimulate land markets (SPLUMA, Objectives and Principles 7(a)).
- Indicate where public and private development infrastructure investment should take place. (SPLUMA, Objectives and Principles 7(a)).
- Indicate desired development and land use patterns in Region 3 in order to achieve mixed income housing, community, educational and job opportunities that support the Bus Rapid Transit system. (SPLUMA, Objectives and Principles 7(a)).
- Provide for the opportunity to walk and cycle in the Region and move away from car orientated planning.

- Provide broad indication of the areas where priority spending should take place in the Region and what the impact on services will be (SPLUMA, Objectives and Principles 7(a)).
- Provide guidelines for development and land use decision-making by the municipality in Region 3.

This framework obtains its guidelines, objectives and principles from the relevant National, Provincial and Local Planning Policies as prescribed by the Spatial Planning and Land Use Management Act (Act 16 of 2013). In the following section the different policies and guidelines are discussed that are applicable to corridor planning.

### 1.4 THE USE OF THIS DOCUMENT

As a point of departure in terms of the governance model adopted by Council, it should be understood that no decision on site specific development applications can have the effect of materially amending the RSDF's or undermine the IDP with reference to Section 35 of the MSA.

The burden on a local authority in the preparation of the IDP and the SDF's with regard to public participation limits the power of a local authority to, without proper consideration amend, undermine or redirect policy. The citizenry within the jurisdiction of the City of Tshwane has the right to be able to rely on the content of the IDP and SDF's and any amendment thereto should not be taken lightly.

In particular, no development proposal may undermine the budgetary provisions contained in the IDP read with the SDF. Should such development proposals have merit, they should be tested against the overall objectives of the policy documentation and formally incorporated to ensure integrated, funded and sustainable development takes place, that reach the objectives set out in the policy documents. The RSDF's indicate where and how discretionary powers are granted to deal with applications on merit. A merit deviation should be based on specific criteria or threshold requirements, which requirements shall in the sole opinion of the local authority be complied with, in order to deviate or amend the RSDF or any component thereof. Keeping in mind that if a proposal is so material as to impact on the overall objectives of the SDF's or IDP, it can only be formally amended by the legislative body of Council, with public participation.

## MAPS AND PRINCIPLES

The different principles as indicated in Part 4 must be interpreted per Map and against the principles as specified in the document. For example density applications will be evaluated according to the density map and accompanying principles as specified in Part 4. Alternative land uses and activities will be evaluated according to the movement and activity map and accompanying principles. The same principles will apply for the Rural map in Part 4. The composite map at the end of the document must only be regarded as a schematic representation of the principles.

## INFRASTRUCTURE

Development proposals, whether in line with these documents or on merit, should only be supported if infrastructure to the satisfaction of the local authority can be provided in line with the overall IDP. This should include the provision of infrastructure by developers that may have an impact on the operational budget of Council. The availability of infrastructure shall not be regarded as sufficient support for a development proposal. The prioritisation and provision of infrastructure is within the sole discretion of the local authority and shall be considered and evaluated based on accumulative impact and prioritisation of resources.

## TRANSITIONAL ARRANGEMENTS

In order for the City of Tshwane to ensure that pending applications that were submitted in line with the rescinded MSDF/SDF's or RSDF's to be substituted by the reviewed MSDF and RSDF's, to be effectively and efficiently evaluated against policy the following transitional measures shall apply: Any development application which relied on the provisions of the MSDF's or RSDF's in support of consideration of the said applications, that are pending before the City of Tshwane at the time of the adoption by Council of the reviewed MSDF's and RSDF's, shall be dealt with as if these revised documents have not been adopted.

These pending development applications shall be finalised based on the policy provisions contained in the rescinded MSDF's and RSDF's or any component of these documents; provided that where applications are pending before the local authority and the reviewed MSDF's and RSDF's are

in support of an application that the local authority in their sole discretion and interpretation of whether in support or not, the application may be considered against the reviewed MSDF's and RSDF's. This provision shall not be applicable if the application by evaluation against the reviewed MSDF's and RSDF's shall have the result of negatively impacting on the rights of an applicant.

The RSDF is not the sole mechanism in determining the suitability of any potential change in land use, but should be used in conjunction with requirements as may be determined by infrastructure and other relevant aspects that may not be contained in the RSDF.

## 2. PART 2: METROPOLITAN CONTEXT

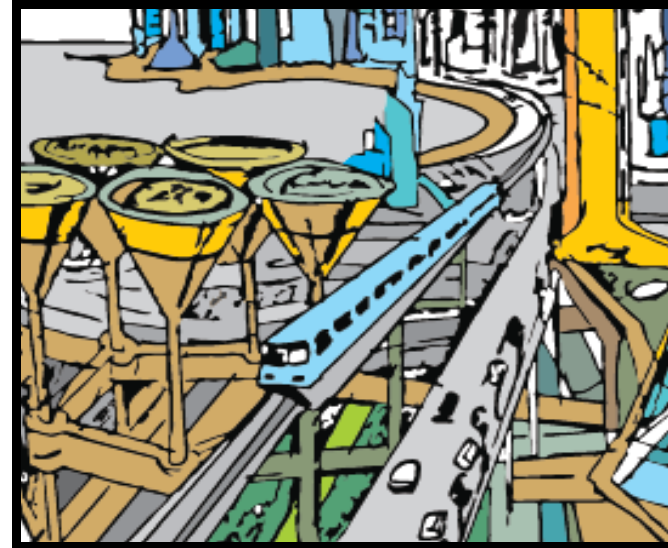
### 2.1 POLICY FRAMEWORK

#### 2.1.1 NATIONAL DEVELOPMENT PLAN: VISION FOR 2030: 2014

The overarching principles of spatial development in terms of the National Development Plan (p 246) are that all spatial development should conform to the following principles:

- **Spatial justice** – Unfair allocation of public resources between areas must be reversed and the confining of particular groups to limited space must be abandoned. The **increasing of urban population density** while improving the liveability of the cities and providing affordable public transport, is seen as complementary strategies to this principle (p 16). Transportation networks are seen as the key to spatial transformation (p 238) and the accommodation of diverse household types is encouraged (p 254).
- **Spatial sustainability** – Sustainable patterns of consumption and production must be supported and ways for living that do not damage the natural environment. **Walk able neighbourhoods**, for example, reduce the need to travel and limit greenhouse gas emissions. In terms of this principle a clear strategy for densification of cities through land use-use planning is proposed (p 33).
- **Spatial resilience** – Reduce the vulnerability to environmental degradation, resource scarcity and climate shocks. Ecological systems should be protected and replenished and support the transition to environmental sustainability (p 256).

- **Spatial quality** – The aesthetic and functional features of housing and the built environment need to be improved to create **more liveable, vibrant and valued places**. Prioritising public transport and the **discouragement of private car** users is seen as one of the strategies in terms of this principle (p 164).
- **Spatial efficiency** – Productive activity and **job creation must be supported**. Efficient commuting patterns and circulation of goods and services must be encouraged. Further procedures must not impose unnecessary costs on development. Unlocking development potential is seen as part of the spatial vision of the development plan (p 247).



### 2.1.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011

**G2055** initiative is an initiative aimed at preparing the Gauteng City Region for a population of approximately 28 million people by 2055. The G2055 vision is for Gauteng to have a strong knowledge capital, be the hub of innovation to Africa, and be a liveable, prosperous, competitive, equitable, accessible and sustainable City region. The initiative is spatially addressed in the Gauteng Spatial Development Framework (approved in February 2011).

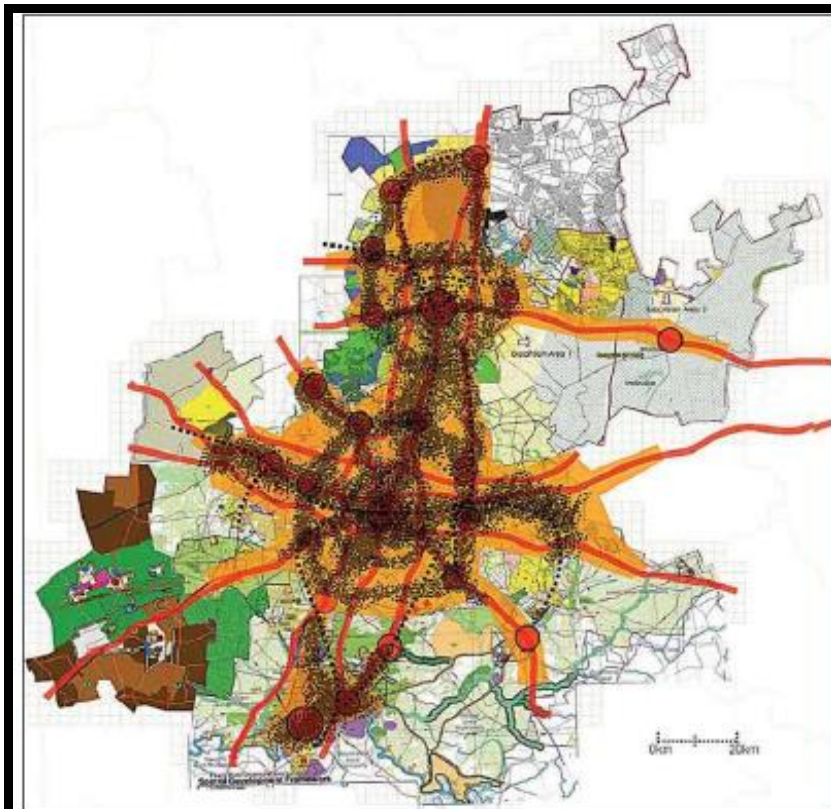


Figure 2-17: Proposed consolidation of urban development in Gauteng Province

Source: Gauteng Spatial Development Framework: 2011

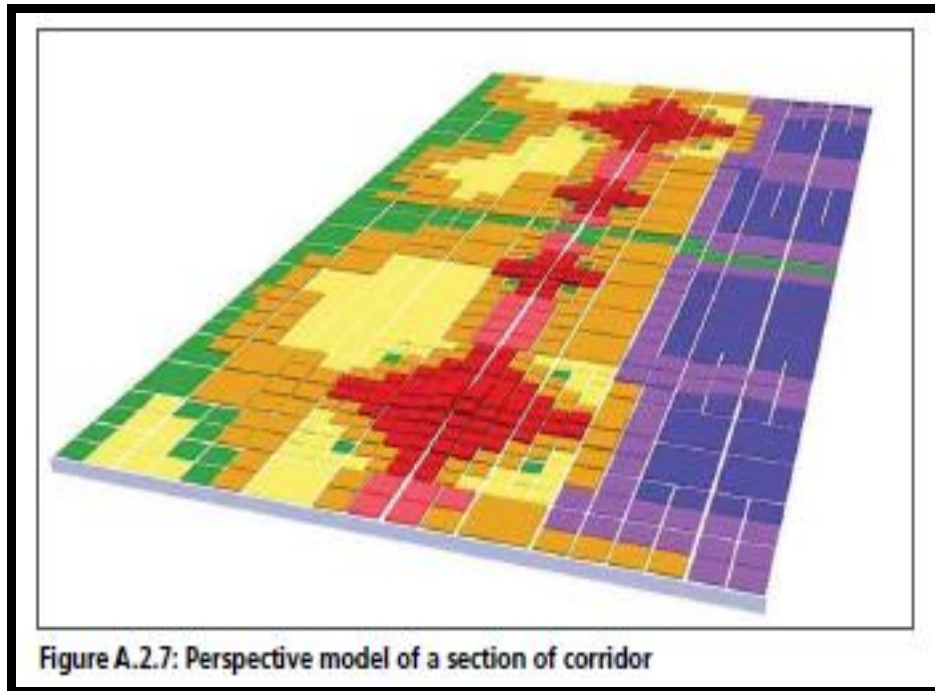
The Gauteng Spatial Development Framework (GSDF) provides a common future spatial structure for the Gauteng Province and is clear on the fact that growth must be structured and directed (p 10).

The primary structuring elements identified within the GSDF are those of:

- urban mixed-use activity nodes
- open space and green system
- public transit and movement routes
- urban corridors and activity spines

Given the comprehensive system of discernible urban corridors and public transport potential within Gauteng, consolidation of **urban development should be concentrated around existing primary urban centres, urban nodes, and urban corridors** and along urban activity spines (p52)





Source: Gauteng Spatial Development Framework: 2011

In terms of corridor development the GSDF seeks to achieve the following:

- The containment of urban sprawl by way of growth management that seeks to advance compaction, **residential densification**, and in-fill development, and mixed land uses within the existing urban fabric will promote walking and cycling (p 65).
- The social and **economic integration** of disadvantaged communities into the urban system, particularly those on the urban periphery.
- The establishment of a hierarchy of nodes coupled with the improvement of **linkages and connectivity** between these nodes and areas of economic opportunity (p 86).

- **Land use-public transport integration** through nodal and corridor development (p 96).
- The promotion of viable public transport systems and **reduction of reliance on private mobility** with strong emphasis on **densification along the priority public transport routes**, especially rail and BRT routes which form the basis of the IRPTN movement system (p 83).
- Public transport routes to become the priority areas for **densification** and infill development.

Evident from these principles is the strong emphasis on public transport becoming the basis of the 'Movement system' in the province, and urban corridors, activity spines and public transport routes. Creating the framework for future processes of **densification** and intensification, including Transport Orientated Development (TOD) comprising mixed uses around road and rail based public transport facilities (p 136).

### 2.1.3 GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013

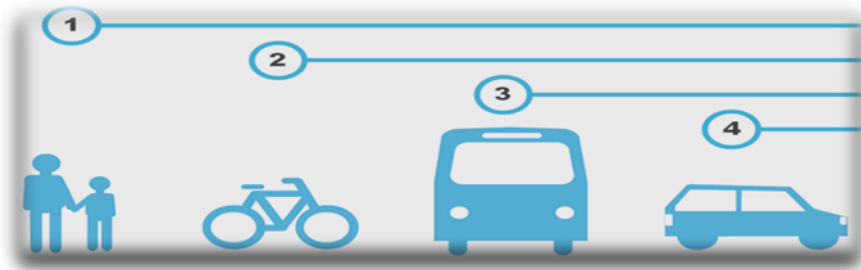
The plan proposes a radical paradigm shift in spatial and transport planning. It serves as a point of departure from apartheid spatial planning, land use and mobility patterns and ushers in an innovative way of structuring our future societal development. It serves as a road map for more detailed planning, particularly in public transport, land use, human resource development and socio-economic development. It is underpinned by founding principles such as economic beneficiation; doing things in a smart and sustainable manner; and integrating transport networks, modes and services interventions" have been identified of which the following two clusters relate to BRT corridor planning (p 23):

- Land Use Development
  - Subsidised housing provision within urban core areas
  - Land use densification in support of public transport
- Strategic Public Transport Network
  - Mainstreaming non-motorised transport (NMT)
  - Reinforcing passenger rail network as the system's backbone

- Extending the integrated rapid and road-based public transport networks

Other important principles are the promotion of NMT as part of a sustainable transport system, e.g. include NMT (walking and cycling) as a feeder system to all public transport systems and redesigning and/or creating a built environment (urban and rural) to inclusively accommodate NMT users according to universal design principles as may be appropriate in terms of social and economic objectives (p 71).

### Diagrammatic representation of the modal hierarchy approach depicting an operational Category that favours the NMT modes



Source: Gauteng 25 Year integrated Transport Master Plan: 2013

Extensive land use densification and more efficient land use and transportation integration around the provincial public transport network will make a significant contribution towards enhancing the viability of public transport in the province. This would require large scale processes of infill development, densification and redevelopment of older urban areas in the province and the containment of urban sprawl by way of a comprehensive urban development boundary for the Gauteng City Region. It also proposes developing spatial compacts which promote processes of densification, intensification and infill development within the existing urban footprint of towns and cities (p 136).

Municipalities should seek to achieve the following density guidelines in various functional areas:

- High Density: 80 units per hectare and higher within 1 kilometre from the provincial IRPTN network and activity nodes served by this network;

In terms of the Provincial Transport Master Plan all municipalities in Gauteng should identify priority nodes/areas along these corridors and **compile detailed Precinct Plans** for these areas (p 32). The plan should be based on the following:

- Promote processes of densification and infill development.
- Reserving a percentage of spare bulk engineering services capacity to accommodate development along priority public transport corridors.
- Relaxing parking requirements for higher density developments along public transport Corridors.
- Facilitating and promoting non-motorised transport within the priority public corridor development areas by way of dedicated pedestrian and cycling lanes.
- Charging users for parking directly as opposed to hiding the true cost of parking in increased rent or tax subsidies.
- Improving public transport infrastructure significantly and subsidizing public transport costs.
- Road space reallocation aiming to re-balance provision between private cars and more sustainable modes.

#### 2.1.4 THE SPATIAL VISION OF THE CITY

The Spatial Vision of the City of Tshwane is to conduct integrated planning, maximising on spatial efficiencies for optimal service delivery.

- A Spatially Efficient Capital City that is Sustainable, Competitive and Resilient:
- Sustainability: Optimising the use of land through densification, infill and consolidation, resulting in a city with spatially integrated equal

opportunities, correcting spatial imbalances, creating sustainable settlements and advancing social equity.

- Competitiveness: Instilling investor confidence by ensuring a well-managed quality built environment through enforcement of relevant legislation, maintenance and management of infrastructure and strategic investment in infrastructure focus areas targeting broad-based economic growth.
- Resilience: Being innovative and adaptable, whilst maximizing spatial opportunities and in turn maximizing economic growth opportunities through strategic investment decisions.

### 2.1.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK (2012)

The MSDF represents the spatial interpretation of desired growth and development directions for the City. It spatially focuses economic and infrastructure development and gives spatial expression to the development plans above (CDS and IDP), both for the long-term and the medium term.

The purpose of a metropolitan spatial framework for the city is to provide a spatial representation of the city vision and to be a tool to integrate all aspects of spatial (physical) planning such as land use planning; planning for pedestrian movement vehicular and other movement patterns; planning regarding buildings and built-up areas; planning of open space systems; planning of roads and other service infrastructure; as well as to guide all decision-making processes regarding spatial (physical) development.

It is the intention of the MSDF to restructure our fragmented, inequitable and inefficient urban form to create a more equitable, efficient and environmentally and financially sustainable urban dispensation in line with current legislation and policy.

The compaction and functional integration of the city are normative directives from national level, and implies:

- higher density urban development,
- greater mixing of compatible land uses and

- Focussed concentration of high-density residential land uses and intensification of non-residential land uses in nodes, around transit stations (such as the Gautrain, BRT, Rail and other formalised intermodal transport facilities).

### 2.1.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY (APPROVED 21 NOVEMBER 2012)

The purpose of the Policy is to provide the City with Operational guidelines for the IRPTN network. The document also provides guidelines in terms of the preparation of planning for IRPTN corridors. The key characteristics of the strategy include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 500 - 900 metres of a transit station
- **Reduced parking ratios for private cars.**

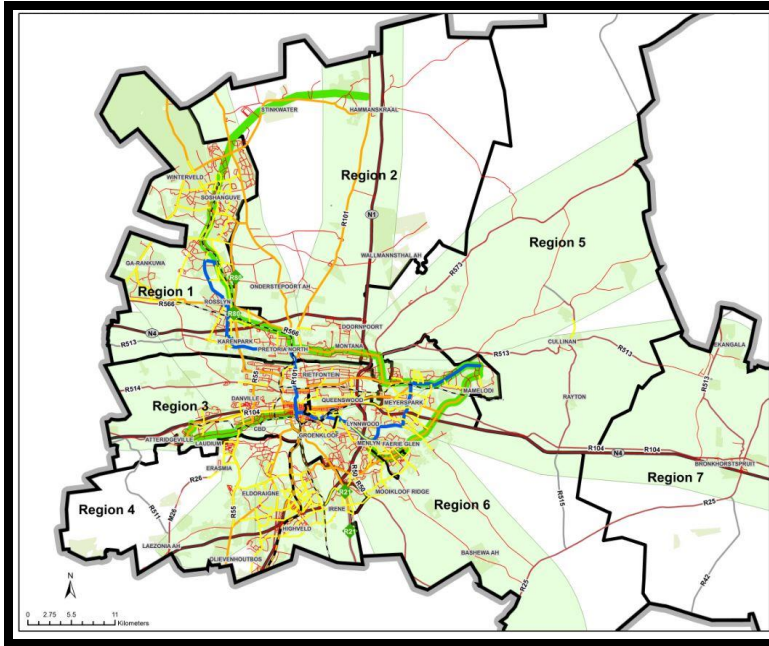
### 2.1.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN (CITP) (APPROVED 6 JUNE 2016)

The Comprehensive Integrated Transport Plan set out the transport goals and objectives for the City that are aligned with the City's mission and are the targets which the City aims to achieve:

- Plan and develop a transport system that improves accessibility and mobility whilst **enhancing social inclusion**;
- Provide a fully integrated public transport system;
- Develop a transport system that drives economic development;
- Improve the safety and security of the transport system;
- Develop a transport system that reflects the image of the city;



- Develop an efficient, effective, development orientated public transport system and **integrate land use and public transport plans**;
- Develop a transport system that is environmentally sustainable.



The CITP is built on the following five key pillars. A few policies and strategies are provided for each pillar as a means of illustration:

- I. Sustainable transport:
  - Provide a transport system with low negative environmental costs yet high positive social value, which supports resource efficient economic development.
- II. Public-transport orientated:
  - **Prioritising public transport and Non-Motorised Transport (walking and cycling) over private transport**;

- Provide public transport access to all residents, including tourists and visitors
- **Land-use to support and promote public transport** e.g. linking economic nodes with public transport, **increase land-use densities along routes** and around modal transfer facilities.

### III. Integrated transport:

- Integration of land-use with transport, e.g. **densification along public transport corridors**;
- Integrated planning and implementation between City of Tshwane departments, as well as between the City and other national and provincial authorities.

### IV. Transport in support of a Smart City:

- Affordability and accessibility of technology e.g. use of electronic communication connections for transport, safety and security (urban traffic control, passenger information, CCTV cameras, etc.);
- Being “smart” by using scarce resources more effectively and through the application of suitable technology e.g. automatic fare collection using smart cards;
- Provide modern public transport modes e.g. BRT, LRT, Gautrain.

### V. People-friendly:

- **Social inclusion, with an emphasis on access**, through the availability of public transport, to opportunities and services;
- Provide affordable, easy to use, safe and secure public transport, including universal access and **facilities for walking and cycling**.

## 2.2 THE CITY STRUCTURE

The CoT covers an area of 6 260 km<sup>2</sup> and is the result of an amalgamation of the previous City of Tshwane, which was established in December 2000, and the three former Metsweding Municipalities (Nokeng tsa Taemane Local Municipality, Kungwini Local Municipality, Metsweding District Municipality), found directly east and south-east of the previous City of Tshwane. The City of Tshwane (CoT), located within the Gauteng

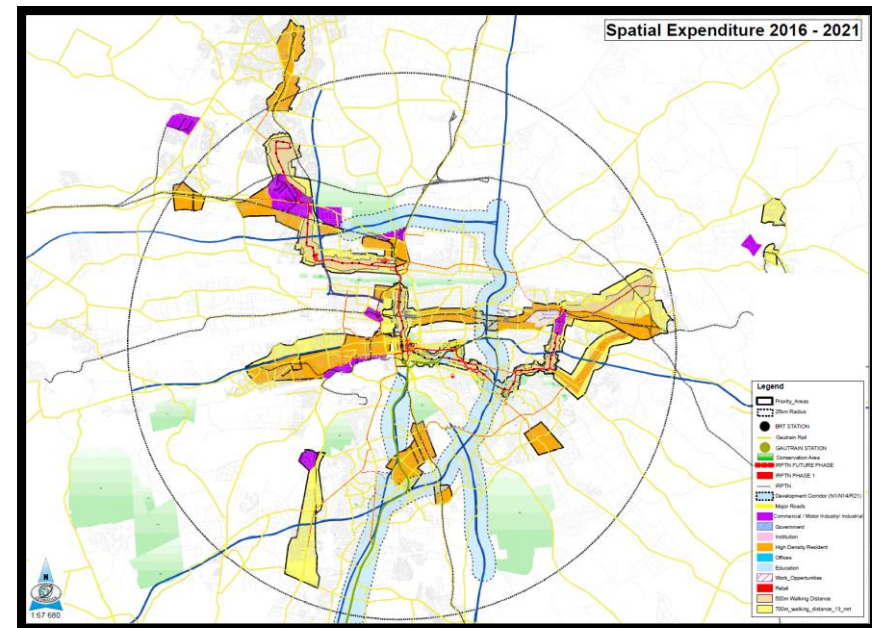
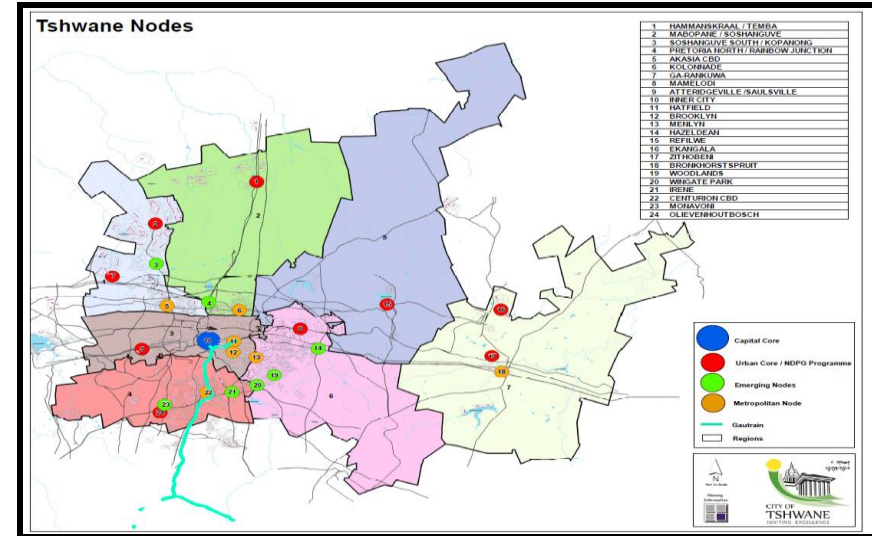
Province, is bordered by the provinces of Limpopo to the north, Mpumalanga to the east, the Ekurhuleni and City of Johannesburg Metropolitan Municipalities to the south and North West province to the west.

With Gauteng being a total area of 18 178 km<sup>2</sup>, the City of Tshwane, at 6 260 km<sup>2</sup>, covers just more than a third of the surface area of the entire province.

Tshwane is divided into 7 planning regions, each with their own unique characteristics.

## 2.2.1 HIERARCHY OF NODES

Understanding that the current needs far outweigh the resources, it is important that the City focuses on the opportunities that exist for exponential growth and investment in the long term. These opportunities will be determined within the spatial vision by indicating where growth will occur in transport, housing, energy, water, recreation, education, health infrastructure and service (as explained by the smart growth concept). The spatial plan will promote efficient and effective resource allocation, ensuring that resources such as infrastructure are delivered in the right place and at the right time. This spatial plan also provides a sense of certainty for the future, and thus, investor confidence.



The key issue is that nodes within the city do not compete but complement and support each other so that the synergies between them maximise the potential of the City as a whole.

An important distinction is made between three nodal typologies i.e.

1. Metropolitan Nodes/TOD - these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Metropolitan nodes are those nodes within the City benefiting from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the pace of growth, provide infrastructure in line with the growth management plan and maintain the urban environment. Such localities are also where the most extensive land use rights, including densities, are likely to be supported, also in line with the growth management strategy. Menlyn, Hatfield, Brooklyn and Centurion City are inter alia presented as Metropolitan Nodes.

2. Urban Cores - former township areas were created as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstances are clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan Nodes. The Neighbourhood Development Programme (NDPG) is a lead City programme and the main instrument for 'township renewal'. Saulsville, Zithobeni, Ekangala and Refilwe are inter alia presented as Urban Cores.

3. Emerging nodes - over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the *potential* for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Cullinan is presented as an Emerging Node.

### 2.2.2 SPECIALISED ACTIVITY AREAS

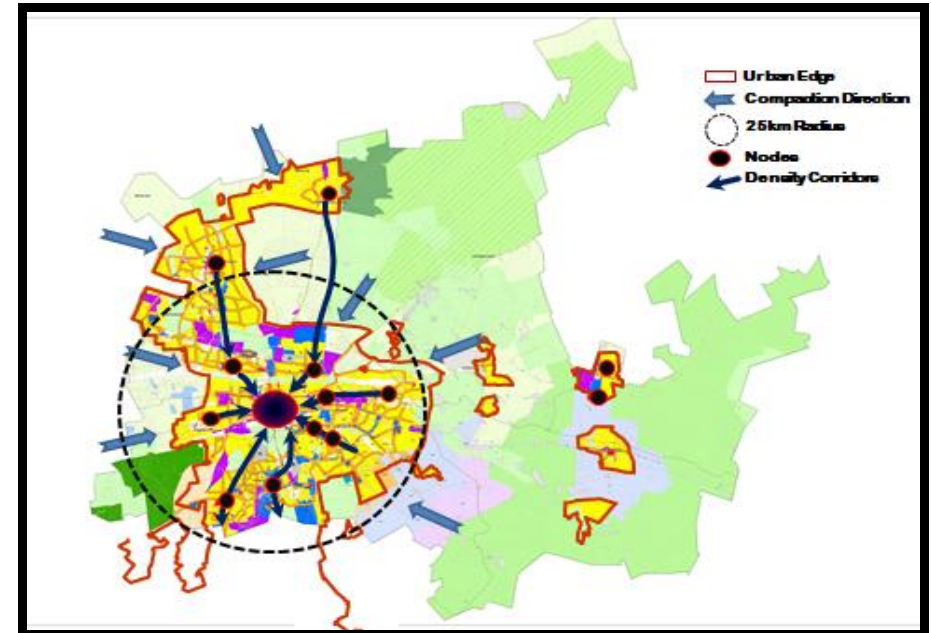
There are nodes in the metropolitan area that are characterised by largely mono-functional land uses taking up large, concentrated and defined space. The character of the areas ranges from industrial to high technology smart industries, medical facilities, educational, research and conservation facilities. It is important to acknowledge these specialised activity areas not just in terms of their scale, but because of their sphere of influence in terms of generating movement, opportunities and linkages with other areas. These linkages do not only refer to physical linkages, but also to “connectivity” in a broader sense, such as between institutions of learning and research.

The Blue IQ initiative of the Gauteng Provincial government contributes significantly towards the specialised activity areas in Tshwane. Blue IQ aims to deliver strategic economic infrastructure to catalyse sustainable economic growth and to indirectly contribute to job creation; to influence the composition of exports, and influence the diversification of Gauteng's GGP. The Blue IQ initiative focuses on five growth areas:

- Business
- High value-added Manufacturing (high value-add)
- Logistics
- Information and Communication Technology (ICT)
- Tourism and conservation

### 2.3 GROWTH MANAGEMENT

Growth management is a spatial concept that encompasses all aspects that ensure efficient, optimal and sustainable development of the physical environment. A key principle of this concept is smart growth. The smart growth principle guides development in such a way that resources and services are provided which meet the demands of the affected population over a long-term period.



The role of nodes within the growth management concept is key. Nodes are those parts of the city where development should be focused. The widest variety of services and opportunities should be provided at nodal points, at a level relative to their nodal status.



The costs of urban sprawl and associated low densities are undeniable. Due to limitations on the provision of new bulk infrastructure, it is imperative that available infrastructure within the nodes are used optimally. This requires densification and intensification of land uses through compaction and infill developments. The maximisation of urban management within the nodes requires that these areas are specifically delineated within the greater developable areas for optimal growth.

The Compaction and Densification Strategy that was approved by the Council contains proposals for densification of the metropolitan area, which have local implications for each of the planning regions. The interpretation of the densification strategy for every region required special attention in the preparation of the RSDF 2017.

The strategy contains proposals for four key density zones:

- Concentration zones (high density / transit zones).
- Linear Zones i.e. corridors and spines (medium density).
- Suburban Densification (low to medium densities).
- Low-density zones

Densification and infill are sound urban development principles to pursue, but it should be noted that most existing developed areas were not planned to accommodate higher densities and that in general the present road infrastructure cannot accommodate the additional traffic that densification implies. Densification should therefore be approached holistically striving to also support a better public transportation system as a dual development process. Densification is necessary for a number of reasons but most importantly it should support the provision of all urban services as best as possible.

Looking at the city from a metropolitan perspective ideally, areas with higher densities should be in the following localities:

- As close as possible to the CBD.
- Close to metropolitan core areas and services.
- In the proximity of areas with job opportunities.
- Close to public transportation facilities (major road and railway facilities).

These delineations extend from the containment of areas where development is permissible to areas where little or no development is permissible - such as environmentally sensitive or conservation areas.

### 2.3.1 URBAN EDGE

One tool for providing delineations as discussed above is the urban edge. The urban edge will contribute to the achievement of the strategic objectives by conserving valuable environmental areas which would otherwise be compromised by development and promoting the use of existing infrastructure through redevelopment, infill development and densification within the edge, thus achieving development that is sustainable. The urban edge also encourages the agglomeration of economies within the edge, encouraging scattered secondary or emerging nodes to develop into consolidated primary nodes as opposed to leapfrog development. The edge also ensures the protection of land- an exhaustible resource- by encouraging Brownfield developments instead of Greenfield developments.

### 2.3.2 TSHWANE RETAIL STRATEGY

A Tshwane Retail Strategy was formulated to guide decision-making on the development and management of retail nodes for the city.

Retail development should balance the needs of the retail sector with the needs of communities, urban functionality and sustainable development and should make a positive contribution to the overall urban environment. The local authority will take a more facilitative approach toward retail developments, provided that the actual development is in line with and support the urban objectives and contribute to a more functional, equitable, convenient and attractive metropolitan environment. Retail development should therefore be approached holistically, looking at the economic, social and environmental aspects.

The principles that underlie the approach taken in retail developments in Tshwane can be summarised as follows:

- To allow market forces and the free economy to determine the trend and tempo of retail development within the parameters set by the Tshwane Retail Policy.

- The desirability of a retail facility will be influenced by the broader area and the specific site as well as the degree to which the retail development contribute to the enhancement of the overall environment and the achievement of metropolitan development goals, as set out in the MSDF.
- Retail developments must be sensitive towards its location and surrounding environment, and be designed and located in such a way that it contributes to the overall quality of the environment and not detract from it. A number of qualitative aspects will therefore have to be considered when evaluating retail applications, such as urban design, landscaping, public transport, interfaces, etc.
- Retail applications and the evaluation thereof have to take consideration of the local context, i.e. the same guidelines and criteria do not apply uniformly to all parts of the metropolitan area.

Because of the fact that Tshwane comprises a large number of diverse areas, each with its own history, level of maturity, growth, population characteristics, etc., it would be unwise to have a singular approach to retail development as a land use.

For this reason, a package of spatial strategies has been developed, that aim to address the relationship between specific contextual circumstances and future retail potential. These strategies should be interpreted more on local level, and are reflected in the Regional Spatial Development Frameworks.

### 2.3.3 RETAIL IN URBAN CORES

It is important to look at the retail development within urban cores relative other parts of the city in context. The retail developments in urban cores are not developed to the same level as in other parts of the city due to the inequitable development policies of the past. Nonetheless, these tables reflect that retail activity does serve as an economic activity within urban cores, albeit not to the same extent as in the metropolitan nodes which have a long history of favourable development policies.

Within the current context of the city's development policies where equal opportunity is promoted, it is also important to note that retail development, as with many other economic activities, is largely a function of the private sector. The private sector is market-driven, which means that it responds to

demand and consumer characteristics. At the same time, the consumer will seek out very specific retail typologies depending on their specific characteristics as a consumer. This supply-demand relationship between developer and consumer will remain a permanent state of affairs. At present, the extent of retail development has largely catered for the consumer group mostly found within urban cores. Previously, due to a lack of private transport and expensive public transport, low-income earners were compelled to source their needs from small localised township retailers. Lower priced goods available at township shopping centres or establishments offered not only the variety of goods available, but also allowed goods and services at more affordable prices. But the population profiles throughout the city are changing as it becomes more integrated spatially, socially and economically. These new population dynamics require that access is given to the upwardly mobile of the former township areas so that spending within the retail arena or urban cores can be directed inward to contribute towards further developing the urban cores. Those that move up the social and income ladder that previously preferred to shop outside townships in upmarket malls (known as 'outshopping') may to a large extent start redirecting their expenditure to township malls if upmarket retail developments are increasingly brought into the urban cores.

The importance of increased, high quality retail development within urban cores is thus two-fold:

- Equitable access to retail opportunities
- Economic stimulation by redirecting spending that might otherwise leave the urban core back towards the core to increase development

While retail development is driven by the private sector, the city has a role towards facilitating the ease with which developers invest in the urban cores. This especially relates to service infrastructure and supporting development policies. Through the NDPG programme, public initiatives will support private funding within urban core areas.

The table below sets out the various urban cores identified within the City of Tshwane:

<b>Township/Catchment Area</b>	<b>Node/Precinct</b>
Mamelodi/Nellmapius	1. Eerste Fabrieke Station Node
	2. Solomon Mahlangu Precinct (Denneboom Station)
	3. T-Section Node
Atteridgeville	4. Saulsville Station Node (includes: Saulsville Station, Atteridgeville Station, CBD and resorts)
Mabopane/Soshanguve	5. Mabopane Station
	6. Soshanguve South x14 (Klip-kruisfontein)
Hammanskraal/Temba	7. Hammanskraal/Temba Node
Olievenhoutbosch/Monavoni	8. Olievenhoutbosch Node
Refilwe	9. To be determined
Zithobeni	10. To be determined
Ekangala	11. To be determined
<b>Node being considered for future incorporation</b>	
Mabopane/Soshanguve	Garankuwa Node

## 2.4 MOVEMENT AND CONNECTIVITY

Movement of people and goods throughout the metropolitan area is of city-wide importance. The main characteristics of current movement patterns within the City of Tshwane are the following:

- Many public transport dependant persons moving into the CBD from the north, the west and the east characterise every morning peak.
- Masses of private vehicles originating in the south and south-eastern parts move from the city in a southerly direction towards Johannesburg.

### 2.4.1 URBAN FORM AND TRANSPORT INTEGRATION

In all successful cities there is a strong linkage and interaction between movement patterns/systems and urban development. It is necessary that land-use planning is done in a way that supports public transport, but it is also necessary to ensure that mass public transport planning promotes and supports urban restructuring and sustainable urban development.

The city historically developed around a strong central core as a mono-centred city. Private investment patterns changed over time with increasing car ownership and a ring of satellite nodes developed. These satellite nodes developed into viable decentralised locations, creating a multi-nodal urban form.

A further implication of the development of the satellite nodes is that the City of Tshwane is becoming increasingly inefficient and hence unsustainable spatially. More residents are becoming ever more dependent on private transport, which is becoming increasingly expensive. The majority of the City's residents have no option other than to rely on inadequate public transport which is also becoming more expensive and unsafe.

#### Spatial challenges identified at Metropolitan Scale

Tshwane is a very large and dispersed metropolis featuring numerous challenging characteristics:

- Low density sprawl: Based on an anti-urban ethic of the free-standing house on a plot.
- Fragmentation: the grain of development is coarse, with isolated (introverted) pockets (cells) connected by roads (and freeways), frequently separated by buffers of under-utilised open space or geographical barriers such as steep ridges.
- Separation of functions: land uses, public facilities (urban elements), races, income groups are all separated by great distances.



## Settlement form

The combined implications of the spatial patterns on the lives of the majority are disastrous:

- Much time-consuming and expensive commuting is necessitated, which aggravates poverty (and inequity) in society;
- City living has become **over-dependant on the private car**, which the vast majority cannot afford;
- Increasing numbers of private cars results in traffic congestion and increases pollution;
- The nature of roads results in environments which generate few opportunities to which small-scale economic operators can respond;
- The system is inefficient and wasteful of scarce resources, such as land, energy and finance.

## Future Spatial Development of Tshwane

In order for Tshwane to accommodate the projected population growth and become sustainable within the Gauteng context, densification will have to take place within specific transport orientated corridors.

The future spatial development of Tshwane will focus on the intensification of urban and metropolitan core areas. The growth of Tshwane should be directed inwards towards the urban cores, mixed used activity spines and specialised activity zones.

### The nature of Public Transport Corridors and their role as Macro Urban Structuring Elements

The development of a mass public transport system such as the IRPTN/Bus Rapid Transit System, Rail and Light Rail can be seen as a tool to achieve either of the following:

- The efficient movement of people around the metropolitan area; or
- The overall restructuring of urban functionality through the employment of an efficient and appropriate public transport system.

The distinction between the two objectives is important from an urban planning perspective. If the objective is merely to move people around in the

city, particularly moving them from home to work and vice versa, then the development of a mass public transport system is purely a transportation issue and is primarily concerned with the provision of roads, infrastructure and vehicles. However, if such a system is to be utilised to improve not only the movement of people, but also to contribute to the improvement of the overall urban functionality an urban image, then the integration between aspects such as transport planning, land-use planning, urban design and urban management becomes vital.

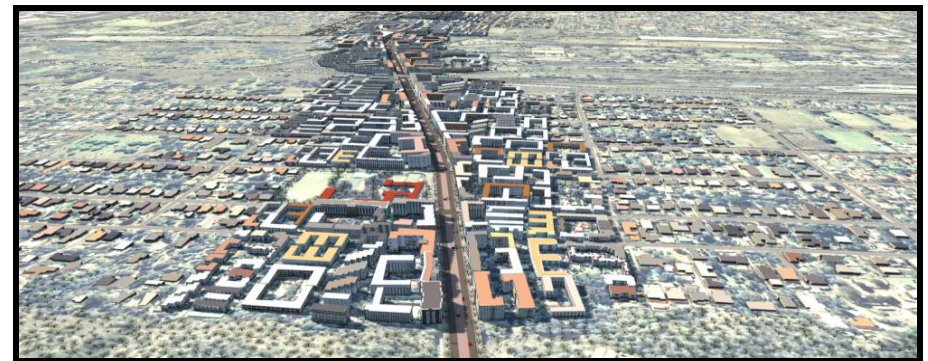
## Mobility / Transport Corridors

Within the Tshwane context mobility has to be ensured on the following three levels:

- To and from other parts of the world and South Africa;
- To and from the Gauteng City Region;
- Movement within the Tshwane Metropolitan Area.

One of the primary reasons for the existence of this type of corridor within Tshwane is to move large numbers of people from one point to another in the city and often over relatively long distances.

This corridor will typically move people from the peripheral areas to work opportunities and back during the day. Because of the long distances separating many people from their work opportunities there is a great need to move people around the city during peak hours in the fastest, most cost effective manner with as little stops as possible between the origins and destinations.



### Activity Corridors

The integration between land use, economic activity and movement is the key function of this corridor. People do not only move between the two outer points of the corridor but also between various points along the corridor.

A mature activity corridor displays most of the positive aspects associated with activity corridors, such as high residential densities and high non-residential land use intensities.

Such a corridor will be most appropriate in the more central parts where a number of nodes with a certain degree of intensity and mix of uses already exist in relative close proximity to each other.

#### 2.4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE

Highways form the corridors for large scale economic development and connect Tshwane with the rest of Gauteng and the country. These highways include the N1, the R21, the proposed western bypass and the Bakwena Platinum (N4) Highway.

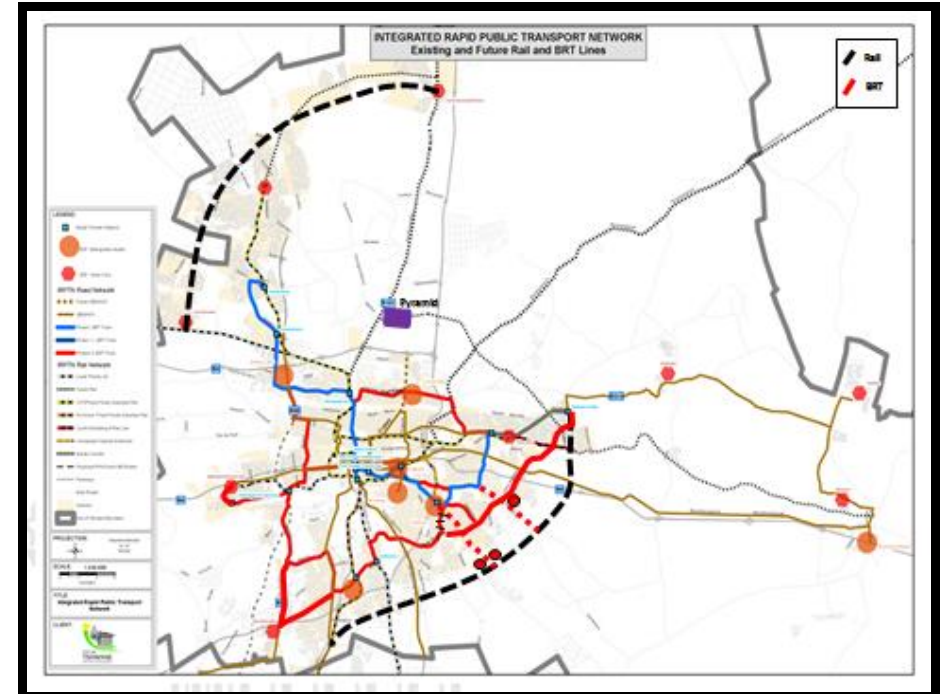
All areas in Tshwane must be well inter-connected by means of a good and efficient public transport system. Two systems are proposed that can serve as the basis of a public transport system, namely rail and the IRPTN/Bus Rapid Transit System.

The existing rail system has great potential of becoming the basis of public transport throughout Tshwane and should therefore form the primary movement system, especially over the longer distances. This system however has current challenges that must be resolved.

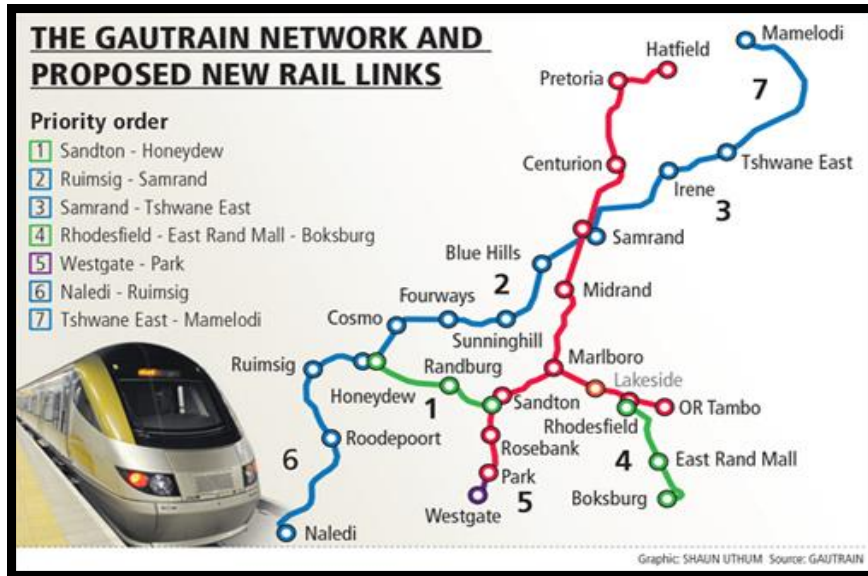
The establishment of an IRPTN/Rapid Bus Transit System is the ideal solution to solve public transport problems over short to medium distances, and will also contribute to connecting metropolitan activity nodes that do not lie on the rail network with each other.

The incomplete concentric road network needs to be developed further to serve the multi-nodal structure of Tshwane.

The Gautrain links Tshwane to Johannesburg and the OR Tambo International Airport by means of a high speed rail link. The areas around the Gautrain Stations provide the potential for urban renewal in and around station precincts. The proposed extensions of the Gautrain to the east of the city are supported and will improve the general movement within the city.



The Gautrain project is primarily aimed at enhancing and supporting economic growth in the Gauteng Province and generating employment. Gautrain is contributing to the urban restructuring of Gauteng. Gautrain station nodes are important as the more people start to stay around stations, the better services are used, less time and money is spent on travelling and a more convenient lifestyle is offered.



Spatially efficient densification policies cannot be implemented without the support of public transport. More residences add more vehicles on roads which are already over capacity. Public transport can be regarded as the tipping point of the success of the city's spatial policies.

Bicycle lanes and pedestrian lanes: Attention must be given to the establishment of separate bicycle lanes and pedestrian walkways to allow for safe movement of cyclists and pedestrians. If these facilities are provided, it will encourage NMT and alleviate traffic problems.

With regard to the movement system, the central concern should be maximising access to regional opportunities. Access has both physical and non-physical dimensions. At a physical level this relates to convenience and at a non-physical level this relates primarily to affordability.

Apart from the physical route, there is also the matter of the means by which one will travel along those routes. Tshwane is experiencing high economic growth, a growing middle-class, and increased vehicle ownership that is causing a surge in traffic volumes and congestion. Public transport has not

been providing an attractive commuting alternative for those who can afford private travel options.

PRASA is currently undertaking studies into the existing and future demand and capacity of rail-based transport. All planning in this regard will also be informed by financial feasibility. There is an opportunity to create efficiency and close public transport gaps by integrating the BRT network with the Rail network. The BRT offers opportunities for both long and short distance travel. This means that where long-distance rail is not feasible, BRT can be implemented or *vice versa*, specifically in the case of long distance travel.



The integration should be carefully planned in order to ensure sustainability by avoiding competition between the two transport options. Preliminary indications are that there is not enough capacity to support both the Rail and BRT system along the same routes. Further, it is expected that the first phase of the BRT will link the Akasia and Menlyn area to the CBD. The BRT will provide both long and short distance travel options. This scenario negates the necessity for rail along the same route.

The Bus Rapid Transit and Rail should be the backbone of the future Tshwane transport system. The intention is that they become the preferred



mode of travel for the majority of residents. In time, the improved public transport system should slowly start overtaking private vehicle usage specifically in nodal areas. This intervention will encourage transport-orientated developments.



Key characteristics of transport-orientated development include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 800 metres of a transit station
- reduced rates of private car parking.

This means that developments that cater for, or provide public transport solutions or align themselves along public transport routes will be prioritised. The decrease of private vehicle usage will also promote pedestrianisation of urban areas and an overall decreased carbon footprint. On the reverse side, in order for efficient transport systems to be sustained, a critical mass of users must be achieved. This means that localities that would induce the convergence of large numbers of people would be required. This again, brings us back to the nodal concept of the widest possible range of services within an area and highest residential densities being supported. The higher the rate of usage of the public transport system, the more affordable it will be. At the same time, the convergence of a large number of private vehicles in a locality causes traffic congestion and an avoidance of such an area by those who have alternatives. Removal of private vehicles can effectively improve the quality of an environment.

The City's road, rail and air movement systems will need to be developed to optimise all related opportunities. The rail system should become the backbone of public transport throughout Tshwane and it is therefore an important structuring element of the city. The positions of the urban cores purposefully coincide with major railway stations. The Gautrain stations in Tshwane include Hatfield, Centurion and the Inner City, again creating opportunities for intensification and development. Further expansion to the east will also allow for additional densification opportunities.

The proposed metropolitan vehicular movement system should be designed to support the rail system, i.e. to enable convenient transport of people to and from the railway stations. The rail network which is well developed with only a few missing linkages is not utilized in terms of its potential as a mass transport facility. With the majority of the population dependant on public transport the strategic rethinking of this mode of transport is necessary.



### Livable Streets Concept

Liveable streets are defined as streets for everyone that are planned, designed and operated to enable a network of safe access for all users, including pedestrians, cyclists and transit riders.

The liveable street concept requires streets to be designed to enable safe, convenient and comfortable travel and access for all users, regardless of their mode of transportation. Complete streets accommodate walking and cycling. Streets are currently designed to only cater for cars; pedestrians are accommodated in the leftover space along narrow sidewalks. No provision is made for other modes of transport and the socialising function of streets is ignored. This is specifically problematic in the inner city where there are large numbers of pedestrians and where the limited space available requires streets to be part of the open-space system. In terms of the complete streets concept vehicle and public transportation users are separated. It also makes provision for the socialising needs of residents and inner city users.

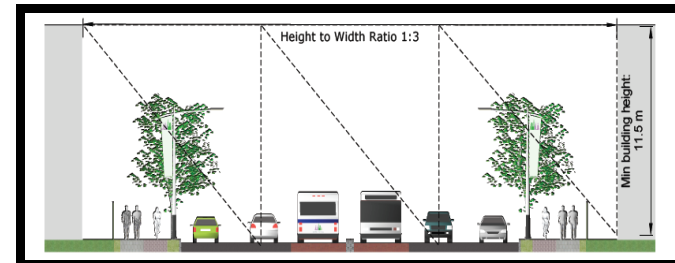
The design principles of complete streets are –

- traffic-calming measures to lower the speed of vehicles;

- a road diet to reduce the number of lanes for vehicles and on-street parking;
- landscaping and streetscaping elements such as trees and benches to create a pedestrian-friendly environment and protect pedestrians from vehicles;
- wide sidewalks to accommodate comfortable pedestrian movement;
- widening of sidewalks in some places to allow for socialising spaces;
- accommodation of cyclists, such as protected or dedicated bicycle lanes; and
- accommodation of public transport such as the bus rapid transit.



Source: City of Tshwane, City Planning and Development Department



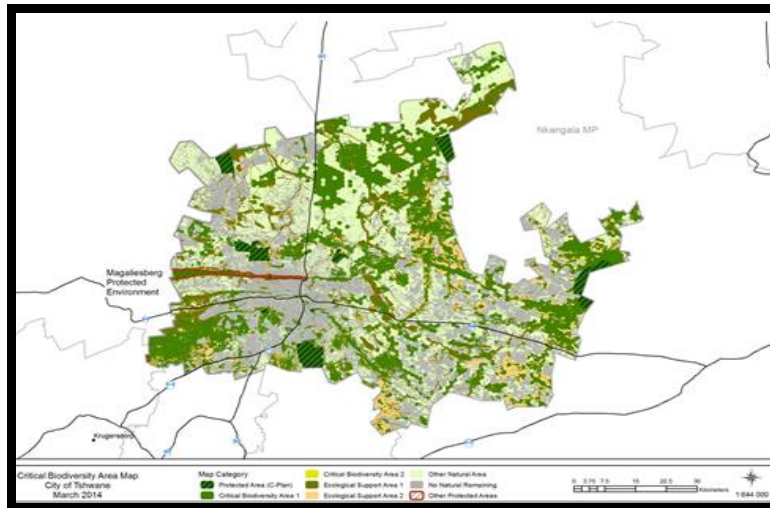
## 2.5 ENVIRONMENTAL STRUCTURING CONCEPT

### 2.5.1 HERITAGE AND CULTURAL SITES

Tshwane's urban form and identity is closely linked to the influence of its natural and cultural elements. The developed areas are intimately intertwined with open spaces, creating a city with a unique character. The spatial development of the city should continue to value the role and prominence of the natural environment that sustains and informs the city. The natural structuring elements of Tshwane are those physical features that have to a great extent influenced the historical growth and settlement development pattern and that have an important ecological role to play in the ecological integrity of the metropolitan area.

### 2.5.2 OPEN SPACE AND CONSERVATION AREAS

A well-defined open space network is an important and integral part of the Spatial Development Concept of the MSDF. The Tshwane Open Space Framework was approved in November 2005. The Framework will need to be reviewed and updated to include the newly incorporated areas of Tshwane.



The development of an open space network is an integral part of shaping the city. Ecological resources are irreplaceable and should thus be one of the major structuring elements guiding the development of the city instead of unplanned urban growth taking precedence and open space becoming merely land that is not desirable for urban development and thus 'left over' space. An important step in shaping urban form is thus the determination of an open space network, which contains natural processes and systems. The open space network is concerned with the spatial structure of green areas in the urban landscape and with all planning activities that are essential to create conditions for green areas to perform ecological services and to contribute to the quality of urban life. It is thus used to indicate the position of green areas in the urban landscape. As such it has spatial, social and technical dimensions. An open space network is also a planning concept, indicating the intention to develop planning and management tools for the structural role of green areas in the urban fabric and the urban organisation.

An open space network not only contains the elements that constitute the open space in itself (vegetation, water, animals, natural materials etc.), but above all how the various open spaces are shaped in relation to the concepts of distribution and organization, to form a system of open spaces. An open space network incorporates a wide variety of open spaces into one system. Open spaces cease to be discreet elements within the city but together form a network in which each component contributes to the whole.

Open Spaces inter alia include the following:

**Conservation Areas:** Areas designated for nature conservation, which may include tourism related facilities and recreational facilities directly related to the main use.

**Recreational and tourism related facilities:** Outdoor and tourism related activities, including hiking trails, hotels, 4x4 trails, wedding venues, conference facilities, curio markets, farm stalls, restaurants, game lodges and resorts with a rural character with due consideration to its impact on the surrounding area and environment. The COT has tremendous opportunities in the eco-tourism arena. Most of the eco-tourism activities occur along the Roodeplaats Dam, which is situated to the north of Cullinan

(Zambezi) Road on the farms of Zeekoegat, Leeuwfontein and Roodeplaat. Both Roodeplaat Dam and Bronkhorstspuit Dam are under immense pressure from high income residential enclaves. Increased development pressure could cause serious degradation of the natural areas as limited environmental management guidelines exist. There is also the Dinokeng Blue IQ project. Eco-tourism activities that can be enjoyed include but are not limited to the following: game farms, nurseries and bird watching to mention but a few.

It must be emphasised that an open space network does not only focus on 'green' spaces, but also on more urban or 'brown' and 'grey' spaces, as well as on spaces that contribute to place-making within the city.

From a city-planning perspective open spaces have various important functions:

**City structuring:** Historically Tshwane's numerous mountain ranges and ridges, rivers and water courses, and nature reserves and conservation areas have had a lasting impact on the city form and development pattern. Today this impact is still felt, as the Magaliesberg with only a few crossings still forms a barrier between the more prosperous southern suburbs of Tshwane and the less well developed northern suburbs. The scenically beautiful conservancy areas in the south-western part of the city form natural buffers for urban expansion in that direction.

On the other hand these structuring elements do present an opportunity to connect and integrate the various parts of the city, e.g. the Apies River which crosses almost the entire municipal area from south to north.

**City image and identity:** The mountain ranges and ridges, large conservancy and protected areas in particular, and rivers and water courses to a lesser degree, are responsible for Tshwane's unique African character and identity, which is being best described as 'nature within a city' and 'a city within nature'. There is the positive contrast between the built-up and natural environments everywhere, but nowhere more expressive than at the southern approach to the inner city. This uniqueness must be protected, enhanced and celebrated at all costs in the future.

**Urban expansion:** The large open spaces (ridges, conservancies, protected areas, etc.) contain urban expansion and prevent the city from developing into a monotonous build-up urban 'desert'. Because of the limitations on land availability this will eventually lead to a more compact city with higher densities, guaranteeing a more sustainable and efficient urban structure for the future.

**Land Uses:** Land-use planning must be done in relation to the open space network where possible, which creates the opportunity to place various urban land-uses or developments inside or adjacent to the open space network. The full potential of the network can therefore be exploited for unique projects which otherwise would not be feasible.

Such developments include ecological estates, where the primary focus is the conservation of the natural resource/open space. Conservation in this sense must not be seen as only protecting special or sensitive environments, but conserving open space as a valuable resource itself. The residential development is seen as a mechanism to protect and enhance the open space character and not as an end in itself. Special conditions shall apply in the consideration and approval of such developments, including the following:

- Dwelling-units shall be grouped together in as few clusters as possible;
- A strategic Environmental Assessment shall be done to determine the open space, the position of the clusters and the position of ancillary uses such as roads;
- Conditions shall be set for the design, character and overall relationship of the estate with its environment;
- Conservation conditions shall be strictly adhered to.

### 2.5.3 RURAL MANAGEMENT

#### Introduction

The erstwhile City of Tshwane (previous dispensation) was mostly characterised as an urbanised Metropolitan area with only a smaller sector known and characterised as definite Rural Areas. It is also important to note that parts of these apparently Rural Areas were further earmarked for Future Urban Development. These Future Urban Development Areas were



designated in terms of each Regional Spatial Development Framework for future urban expansion and development.

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane, now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order to protect the environmentally sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land-use development in the less sensitive areas.

### Background

The following source documents were used as building blocks for the compilation of the revised Rural Component, Rural Management and Rural Development:

- Tshwane Biodiversity Plan (2016)

All information with regard to the existing Urban Edge, Ridges, Ecological support areas, important areas, Irreplaceable areas, protected areas, Game Reserves and Nature Reserves were used

- The existing and future provision of essential services

Information with regard to the provision and capacity of water (reservoirs), sanitation (waste water plants), roads, storm-water, electricity, watersheds and flood lines were used to determine the development edge

- The Metsweding Environmental Management Plan
- The Gauteng Spatial Development Framework, 2011
- The National Planning Commission: National Development Plan 2011: Chapter 6: An Integration and Inclusive Rural Economy.

It must be noted that all these documents were used to inform the revised Rural Component and did not dictate the final product.

### Demarcation of the Rural Component

In terms of the Gauteng Spatial Development Framework, 2011 the function of determining the Urban Edge has moved to the Local Authorities and is no longer part of the Provincial Planning functions.

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

These areas will remain as Future Urban Development as it shall retain a rural character until such time that basic services can be provided. These areas still need to be managed as rural areas with specific guidelines contained in the different RSDF's.

As soon as the areas earmarked as Future Urban Development have been serviced, these newly serviced areas will be excluded from the Rural Component and will form part of the urban fabric of the city.

### Vision

The Tshwane Rural Component Vision will:

- Promote an effective response to rural poverty;
- Ensure food security by maximizing the use and management of natural and other resources;
- Create vibrant, equitable and sustainable rural communities;
- Contribute towards the redistribution and sustainable use of all potential agricultural land;
- Support rural economies, based on agriculture and where possible on mining, tourism and agro-processing;
- Create employment and business opportunities for the existing rural population;
- Aims to prevent natural disasters like erosion, pollution and other detrimental effects on natural resources;
- Formalize residential settlements according to the Rural Component Framework;

- Promote accessibility to community facilities, work opportunities and housing for all;
- Maintain acceptable standards for roads and other modes of transport;
- Provide public transport services for the more densely populated rural areas;
- Identify multi-purpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations;
- Attend to the matter of ownership and tenants' rights, especially in areas where tribal land ownership exists.

### Guidelines

In the new Tshwane Metropolitan Rural component, the following conditions exist that need to be taken into consideration. Each Region has its own specific rural character and rural composition and detailed proposals for the Rural component are therefore dealt with in each Regional context.

Various Rural land-use / Rural activity zones are located within the Rural areas and are indicated on the different Rural Component maps for the various Regions. Together with the maps there are tables contained in each of the Regional Spatial Frameworks with restrictive or promotional conditions for every Rural land use / Rural activity zone located in that Region.

The Rural land uses/Rural activity zones for Tshwane Metropolitan area are:

- Development Edge
- Major Rural Roads
- Existing Infrastructure for essential services
- Future Urban areas
- Management zones
- Agricultural areas
- Agricultural High Potential areas

- Sensitive protected areas (combination of C-Plan protected areas, including Ridges and Streams, Natural resources, Fauna and Flora protected places / areas)
- Heritage and Cultural protected areas
- Tourism potential places / areas
- Human settlements
- Conservancies
- Game and Nature Reserves
- Mines / Places of manufacturing
- Community Service Centres

### Conclusion

The main principle of rural development is to increase accessibility of rural people to basic services in support of survival strategies in the first instance and, in the second, to establish a base from which to start engaging more in productive activities. Given limited resources, the rural component should provide the basics for survival to all existing settlements but make no provision for additional settlement growth. Localities with some economic potential should receive higher levels and a wider range of services/facilities.

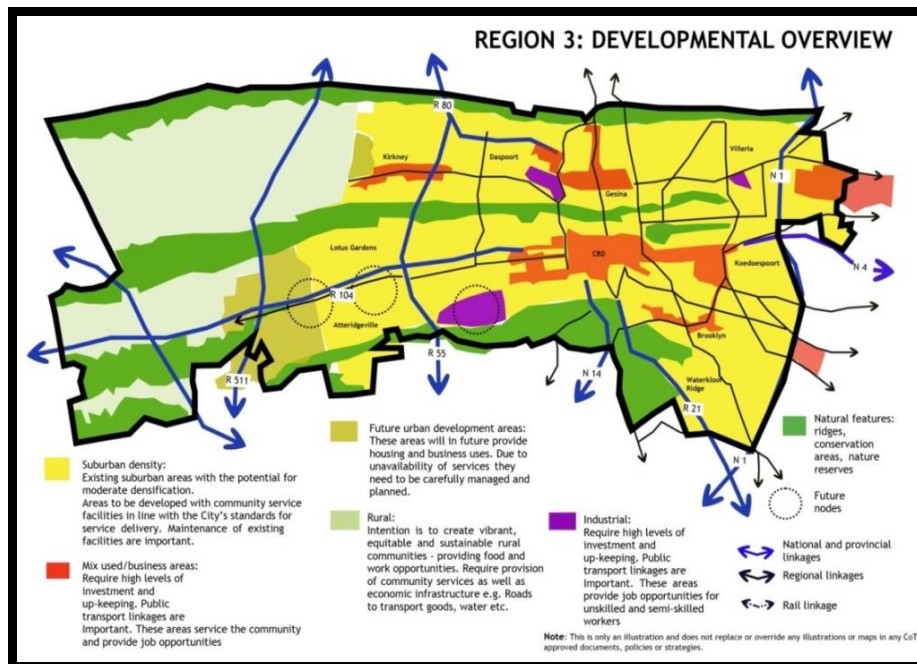
The Smart growth principle will furthermore be strengthened through a well-managed Rural Component and will assist in:

- Discouragement of urban sprawl and contain growth within the city limits;
- Compaction of the city through infill and densification;
- Improvement of the utilisation of existing infrastructure, services and facilities;
- Preservation of the rural environment and landscape;
- Protection of agricultural land, especially high potential agricultural land;
- Preservation of the environments that promote tourism, recreation and nature conservation;
- Urban regeneration by adopting an inward approach; and
- Protecting cultural and tourism assets.

## PART THREE: REGIONAL ANALYSIS

### 3.1 LOCALITY

Region 3 is bordered by the Magaliesberg Mountain range to the north and the N1 freeway to the east, including a small part of East Lynne and Silverton. The region includes the CBD of Tshwane, the Brooklyn and Hatfield metropolitan nodes as well as the western area of Tshwane (commonly known as Pretoria West). To the south-west, the region borders on the jurisdiction of Mogale City and to the west is Madibeng in North West Province.



The region is accessible from a regional point of view as it is served by both north-south and east-west higher order roads, linking it to the rest of Gauteng and the broader region. The major access routes are:

- The Ben Schoeman freeway which enters the Inner City from the south, linking it to Centurion, Midrand and Johannesburg further south;
- The R21 Freeway also entering the Inner City from the south and enabling access to OR Tambo International Airport and the Ekurhuleni Metro (East Rand);
- The N1 eastern bypass runs mainly on the eastern boundary of the region and provides access to the north of Gauteng and Limpopo;
- The N4 Freeway running through the east of the City to the Inner City, giving access to Mpumalanga, as well as through the north of the city to the N1, giving access to North West Province;
- The partly constructed PWV 9 or R80 western bypass, giving access to Regions 1 and 2 to the north of the Inner City;
- The former N4 (PWV1) freeway, which links the CBD of Tshwane with the southern part of Madibeng in North West and runs east-west through the west of the region. This road forms a dominant central mobility spine within the region; and
- WF Nkomo Street (running parallel to the former N4) and Helen Joseph (formerly Church) Street, linking the regions on the western and eastern parts of the city through the CBD.

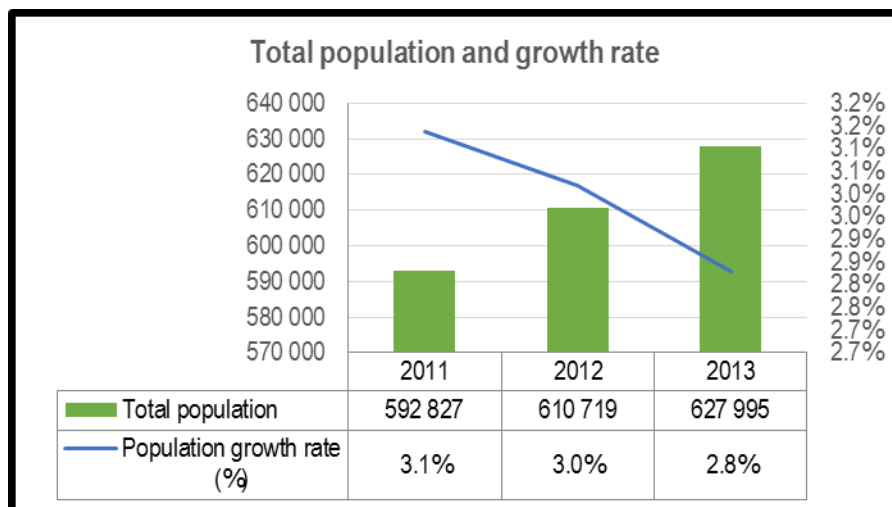
### 3.2 AREA

Region 3 is in extent 376 km<sup>2</sup> (three hundred and seventy six square kilometres). The eastern two-thirds of the region are mostly urbanized whereas the western third is mostly rural. Large open spaces are also found in the south at the Fountains Valley and along the adjacent ridges.

### 3.3 DEMOGRAPHIC INFORMATION

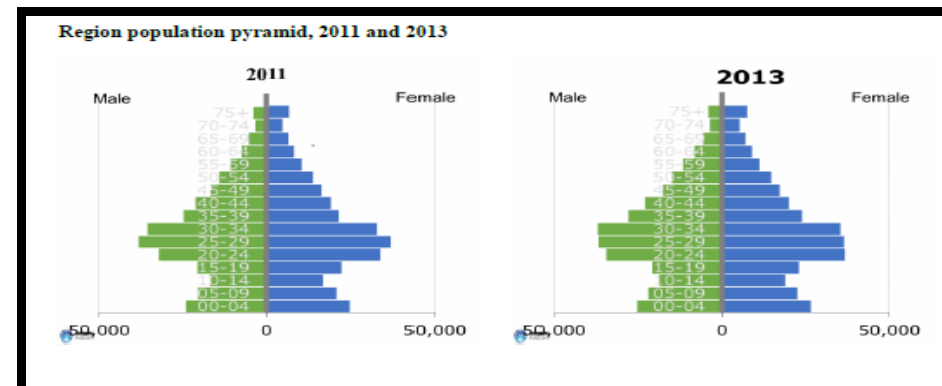
An estimated population figure for this area suggests 682 237 people in 2016. (IHS Global Insight). The average annual growth rate for Region 3 is about 2.8%.

#### Total population and growth rate, 2011-2013



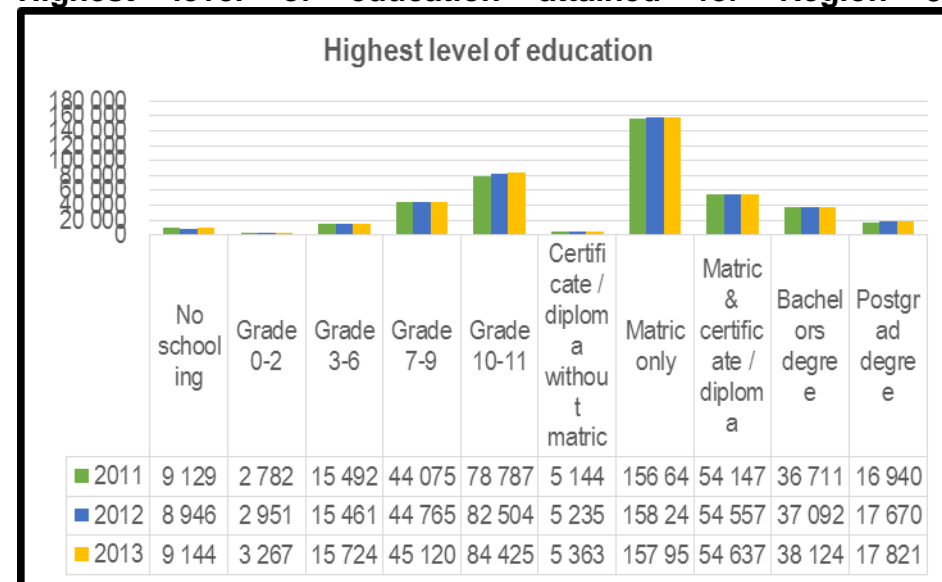
Source: IHS Global Insight

The graph above indicates the total population and in Region 3 and the associated percentage growth rate from 2011 to 2013. As indicated in the figure, the population in Region 3 has been steadily increasing in nominal terms; however, the percentage growth has been subjected to minor volatilities. In 2011, the total population was approximately 592 827 and grew to 627 995 in 2013, representing 6 percent growth over the period. The population growth is growing at a declining rate, in 2011 the population growth rate was at 3.1 percent and this has declined to 2.8 percent in 2013.



The above graphs indicate the 2011 and 2013 population pyramid for Region 3. From the figure, it can be noted that there is a youth bulge in Region 3's population i.e. it can be observed that a significant portion of Region 3's population is younger than 35 (63 percent).

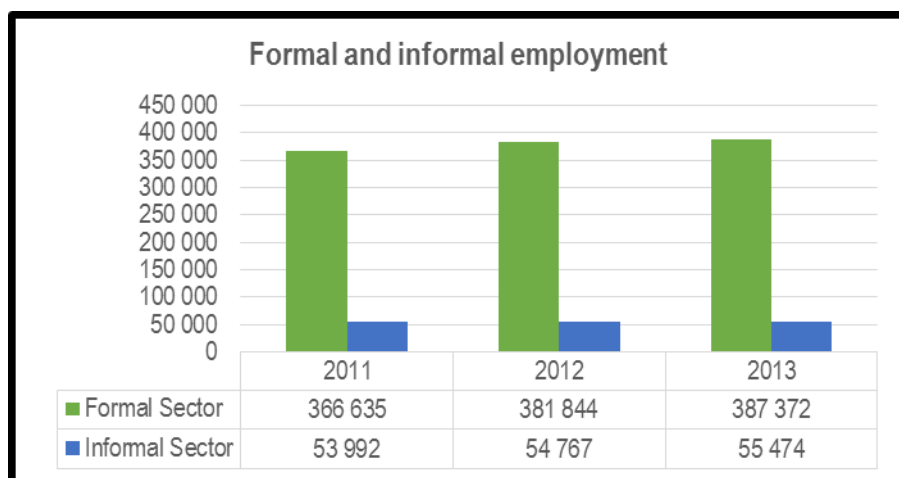
#### Highest level of education attained for Region 3



Source: IHS Global Insight

The above graph indicates the highest levels of schooling for the population aged 20 years and older in Region 3. As indicated in the graph, Region 3 has over the years under review i.e. 2011 – 2013, increasingly performed well with respect to education, more so in the accumulation of both matric and post matric qualifications. In 2011, approximately 156 640 individuals aged 20 years or older, had at least a matric qualification, this has since increased to 157 957 individuals in 2013.

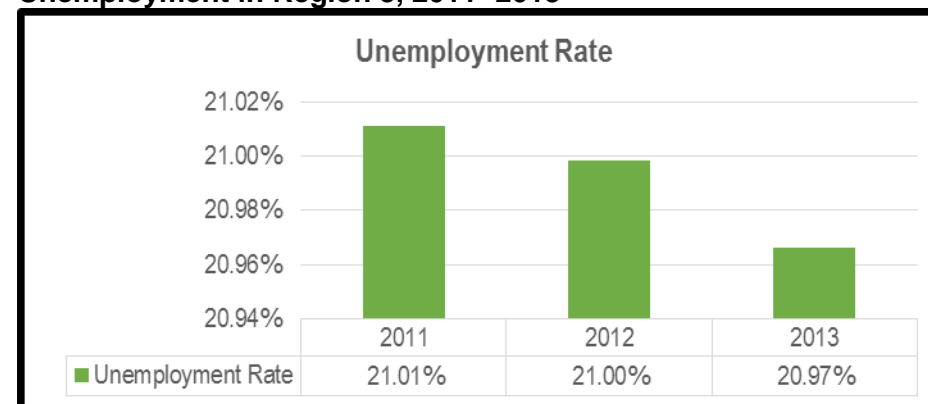
### Employment in Region 3 by sector (formal and informal), 2011 -2013



Source: IHS Global Insight

From the above graph, indications are that the total employment in Region 3 has been steadily increasing over the 2011-2013 period as disaggregated by sector (formal or informal). As indicated in the table, in 2011, the total number of individuals employed in the region were approximately 420 627, this have increased to 436 611 in 2013. As one would expect, the largest composition of this employment is formal employment which was 366 635 in 2011 and this has increased to 387 372 in 2013, on the other hand, informal sector employment has increased from 53 992 in 2011 to 55 474 in 2013.

### Unemployment in Region 3, 2011 -2013



Source: IHS Global Insight

The above graph indicates the unemployment rate in Region 3. It can be noted from the figure that the unemployment rate in Region 3 has been relatively unstable, however, over the 2011 – 2013 period, Region 3 recorded improvements. In 2011, the unemployment rate was 21.01 present, this slightly improved to 20.97 present in 2013.

### SERVICE DELIVERY

Access to service delivery is a key government responsibility. This section focuses on the dwelling, and accompanying services available to Tshwane residents.

#### Share of households occupying formal dwellings

Year	Share of household occupying formal dwellings	Share of households with Hygienic toilets (%)	Share of households with piped water at or above RDP-level (%)	Share of households with electrical connections (%)
2011	80.9%	90.3%	91.7%	87.4%
2012	81.4%	90.6%	92.0%	86.8%
2013	81.7%	90.7%	91.7%	85.9%



Source: IHS Global Insight

The above table reflect the share of households occupying formal dwellings, households with hygienic toilets and with piped water at or above RDP level in Region 3.

The Share of households occupying formal dwellings measure combines households occupying both formal and very formal dwelling-units and takes the total as a percentage of all households. A formal dwelling unit is a structure built according to approved plans. This category includes a house on a separate stand, flat or apartment, townhouse, room in backyard, rooms or flatlet elsewhere etc, but without running water or without a flush toilet within the dwelling. A very formal dwelling-unit is the same as a formal dwelling-unit but has both running water and flush toilets within the dwelling.

### 3.4 WARD PRIORITIES FOR 2015/16

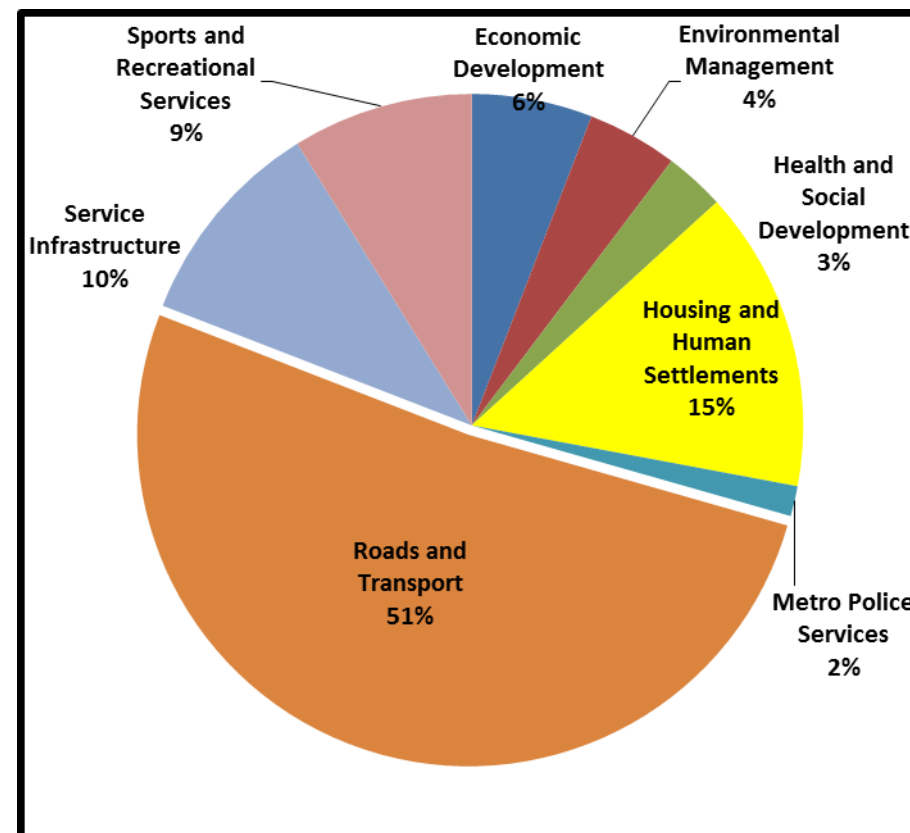
During the public participation process in preparation for the 2015/16 IDP review; the three top priorities per ward in terms of community needs / service delivery were reconfirmed and compiled.

In summary, the following were the key dominant service delivery areas which were raised in Region 3 during the 2015 review process:

Dominant Service Delivery Areas	
Service Delivery Department	Community Issue / Concern
Roads and Transport	Traffic calming Road upgrades Pedestrian bridges
Sports and Recreational Services	Multi-purpose centres to be provided New sports facilities / maintenance of existing facilities Need for libraries / mobile libraries

The service delivery issues which were raised are therefore clustered into relevant City departments as per the graph below:

- It contains the CBD which is the largest job opportunity zone in the metro;
- In addition to the CBD it also contains two first order nodes i.e. Brooklyn and Hatfield;



Source: IHS Global Insight

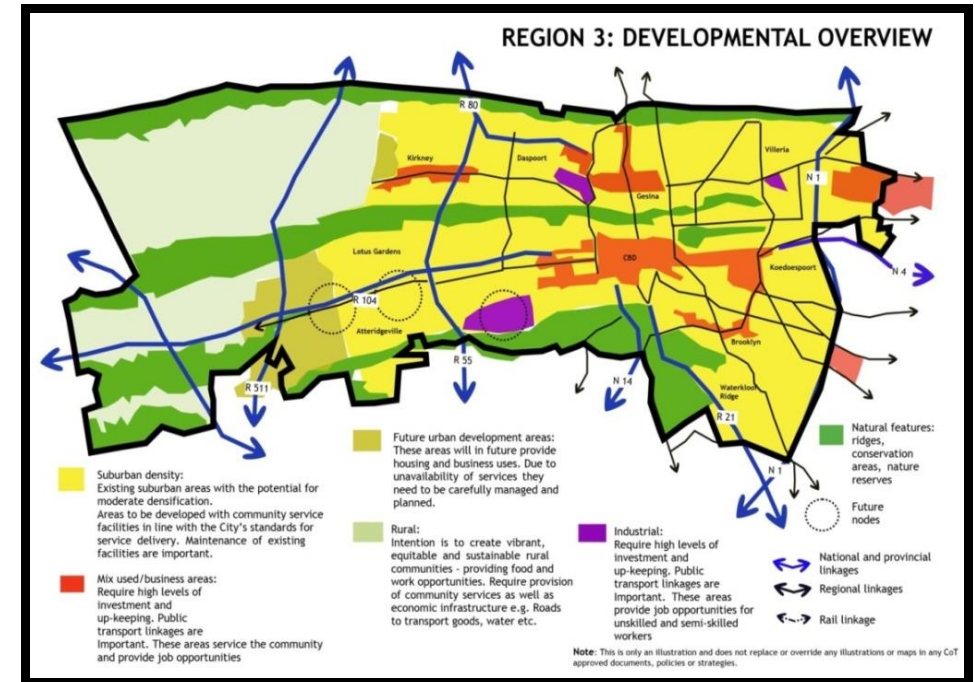
### 3.5 REGIONAL CHARACTERISTICS

The main characteristics of Region 3 are discussed below:

- The region is host to National Government offices and forms the administrative heart of government and as such has capital city status;
- The region is centrally located within the metropolitan area.
- It contains the CBD which is the largest job opportunity zone in the metro;
- In addition to the CBD it also contains two first order nodes i.e. Brooklyn and Hatfield;

- Two of the three Tshwane stations of the Gautrain is located in the region;
- The region contains major land marks, large institutions and a large number of hospitals;
- The south-eastern part of the region accommodates middle and higher income groups while most of the low income groups are located in the west;
- The region contains some of the oldest townships in the greater Tshwane indicating the heritage value of buildings and structures in the area;
- In this regard there are several landmarks and gateways which have conservation value;
- Atteridgeville in the west of the region is a low income area, including a large expanding informal settlement;
- The north-western part of the region (the so-called West Moot) is characterised by predominantly rural residential occupation and extensive land uses;
- The north-western section of the region also includes undeveloped agricultural land, various residential townships and the PPC cement manufacturer;
- The central section located directly to the north of the CBD includes the Capital Park Container Depot and a number of residential townships;
- The Crocodile River basin in the south-west of the region also contributes water to this region. This is an important natural resource which provides opportunities for tourism and recreational activities; and
- The underlying dolomite in the south of the region, the sensitive environmental areas and the ridges tend to direct and inform urban development.

### 3.6 STRUCTURING ELEMENTS



The main structuring elements of the region include:

- The region lies to the south of the Magaliesberg, which runs east-west through the city.
- The Apies River runs north-south through the region and forms the open space backbone of the region.
- There is an intricate open space network present in the region consisting of the following formative features:
  - The Magaliesberg Mountain range forming the northern boundary.
  - The Witwatersberg (Daspoortrand) in the central part
  - The Schurveberg/Kwaggasrand/Langeberg Mountain, forming the southern boundary.



- There is poor north-south mobility linkage within the region due to the restrictive mountain ranges.
- Three landmark sites that contribute to the legibility of the city and form important vantage and viewpoints to the city are the Union Buildings, the Voortrekker Monument and the Freedom Park National Legacy site, which is the southern focal point of the Paul Kruger Street main axis.
- Paul Kruger and the former Church Street form the central core of two redevelopment corridors (Re Kgabisa Tshwane project). This project will focus redevelopment and intensive urban management in the Inner City. This is the principle axis of the historic grid layout of the Inner City.
- The proposed PWV 6 and 7 roads towards the west could provide further future linkage between Tshwane and Johannesburg. These routes will provide valuable thoroughfare over the mountain ranges.
- WF Nkomo Street (the former Church Street West) follows the former N4 and links the western parts of the region to the CBD.
- Helen Joseph/Stanza Bopape Street (the former Church Street East) links the region to the CBD and the eastern parts of the Metro.
- The N1 eastern bypass forms the eastern boundary of the region and is an important north-south running road providing further structure to the region.
- The PWV-9 western bypass provides good linkage to Akasia/Rosslyn and once this proposed route is completed it will connect the entire western part of the metro with the northern areas of Johannesburg. At present the built position of the PWV-9 and its future extension acts as a buffer for development.
- Van der Hoff Road is a strong structuring element of the north-western section of the region as is Nico Smith Street in the north-eastern part of the region.
- The region enjoys excellent accessibility to the CBD although limited by the various mountain ranges.
- The region is well served in all directions including rail with a number of stations linking Atteridgeville with the CBD. Rail transport plays an important mobility function in terms of the greater metropolitan area.
- Atteridgeville experiences strong development pressure in a westerly direction, resulting in impacts on the natural environment.

- The high-potential large natural areas (conservation and conservancy areas) in the undeveloped western part of the region need to be developed and protected.
- Industrial uses including the Pretoria Industrial Township give structure to the south-western part of the region.

### 3.7 ECONOMIC BASE

Together with the previously mentioned economic nodes, the Innovation Hub on the eastern boundary of the region is a further contributor to economic growth. Identified as one of the Gauteng Provincial Government's Blue IQ projects, the aim of the Hub is to become the high-tech business cluster in South Africa.

It is estimated that the working population of the site, once completed, will be approximately 6000 and that it will attract between 1500 and 2000 vehicles to the site. Providing local and foreign companies a gateway to high-tech resources in Africa, the Hub will allow for intense economic growth within the region, positively contributing to the local as well as the regional economic base.

Information will be updated with the information obtained during the compilation of the 2015 Transport Plan.

### 3.8 PHYSICAL ENVIRONMENT

#### 3.8.1 NATURAL STRUCTURING ELEMENTS

The environmental features of Region 3 are major form-giving elements that determine the surrounding urban structure.

Region 3 is characterised by the following:

- Significant ridge systems such as the Witwatersberg, Meintjieskop, Klapperkop, Salvokop, Strubenkop, Groenkloof Ridge and Lukasrand;
- Significant ridge systems and hills are prevalent through the whole region, notably the Magaliesberg range in the north, the Witwatersberg range in the central part and the Schurveberg range in the south. Of significance are also Kwaggasrand,

- Langeberg, Atteridgeville Ridge, Magazine Hill, Weskop and Skanska.
- Ecologically sensitive areas are found in the south-western part of the region where the Hennops River cuts through the Schurveberg Range and this forms a contiguous unit with the Crocodile River conservation area that have been established within and along the provincial border with North West Province.
  - Significant watercourses and wetland systems throughout the region, most notably the Apies River, Walkerspruit, Rietspruit, Swartspruit, Crocodile River, Steenovenspruit and Colbyn Valley wetland/peat. However, the Apies, Walker, Steenoven, Modder and Moot watercourses have for the most been transformed by human intervention.
  - Several ornamental parks such as Burgers Park, Magnolia Dell, Venning Park, Jan Cilliers Park, Springbok Park, Pieter Human Park as well as smaller parks in Flowers Street, Capital Park and Franzina Street.
  - Significant cultural historic open spaces at the West Fort, Westfort Hospital, Rebecca Street Cemetery, Voortrekker Monument and Skanskop Fort, Freedom Park, Wonderboom Fort, Helde-akker and Union Building Gardens.
  - Significant institutional open spaces at the University of Pretoria and the Tshwane University of Technology;
  - Significant recreational open spaces in the form of the Loftus Versfeld Rugby Stadium, Pilditch and Caledonian Stadiums, Harlequins and Gauteng North Tennis HQ, De Jong Diving Pool, Lucas Masterpieces Moripe Stadium in Atteridgeville, Adelaars and Rietondale Park.
  - Three golf courses at the Pretoria Golf Club in Pretoria West; Waterkloof Golf Club in Monument Park and the Pretoria Country Club in Waterkloof.
  - Large exhibition open space at the TSWABAC showgrounds;
  - In addition, the region also includes the following prominent land uses of strategic significance to the local as well as the broader urban environment of Tshwane:
    - Inner City
    - Union Buildings
    - Marabastad

- Embassies
- Nelson Mandela Development Corridor
- Church Square
- Brooklyn Metropolitan Node
- Hatfield Metropolitan Node
- Pretoria Industrial Township, as well as Charlotte Maxeke Street and Soutter Street industrial area.
- The Fresh Produce Market
- The Capital Park Container Depot
- The Steve Biko Academic Hospital
- The Innovation Hub
- Hatfield Gautrain Station
- Pretoria Gautrain Station
- CSIR

### 3.8.2 NODES

The region accommodates a number of important retail and office nodes, such as:

• Arcadia	8 000 m <sup>2</sup>
• Brooklyn Mall	51 000 m <sup>2</sup>
• Design Square	12 000 m <sup>2</sup>
• Sancardia	10 700 m <sup>2</sup>
• Sammy Marks	33 000 m <sup>2</sup>
• Sanlam	13 700 m <sup>2</sup>
• Sunnypark	36 100 m <sup>2</sup>
• Atteridgeville Attlyn Mall	15 000m <sup>2</sup>
• Quagga Centre	22 300 m <sup>2</sup>
• Atteridgeville CBD	22 900 m <sup>2</sup>
• Hatfield/Hillcrest	43 200m <sup>2</sup>
• Brooklyn	363 560m <sup>2</sup>
• Waverly Plaza/Codonia Ave	12 500m <sup>2</sup>
• Gezina City	25 000m <sup>2</sup>
• Mayville Mall	15 000m <sup>2</sup>
• Jacaranda Centre	30 000m <sup>2</sup>

### 3.8.3 LINEAR ACTIVITY AREAS

Outside the Inner City and the Brooklyn node, linear development occurs along the following roads:

- Helen Joseph Street
- Soutter Street
- Charlotte Maxeke Street
- Pretorius Street
- Francis Baard Street
- George Storrar / Middel
- Jan Shoba Street
- Parts of Park Street and Lynnwood Road
- Steve Biko Street
- Paul Kruger Street
- Van der Hoff Road
- Nico Smith Street
- Frederika Street between Frates Road and Johan Heyns Drive
- Moot Street
- Codonia Avenue

### 3.8.4 RESIDENTIAL

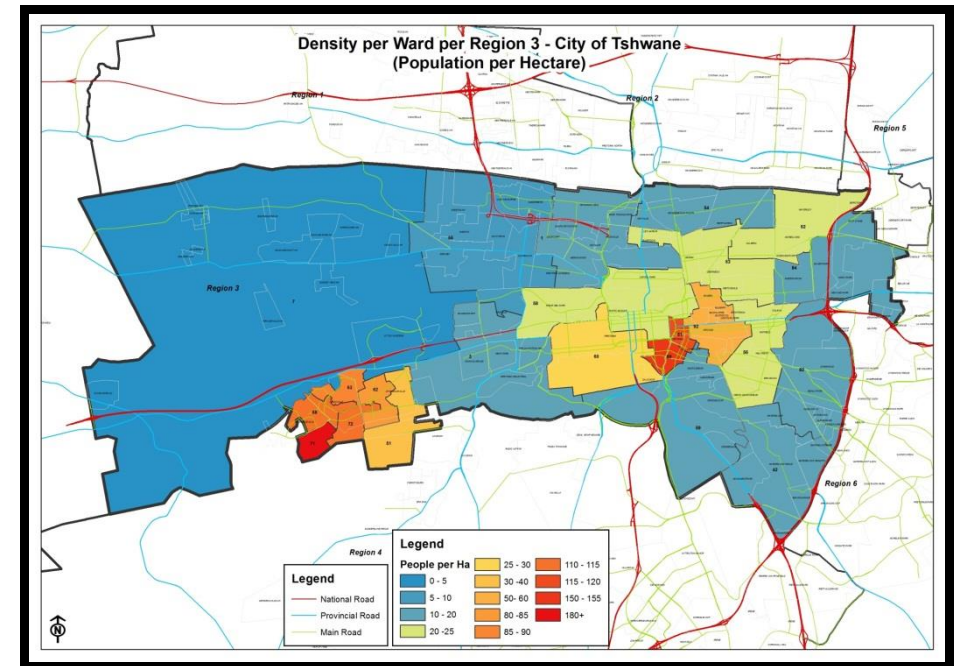
In terms of a city wide perspective, the region has the following residential characteristics. (Source: Tshwane Metropolitan Profile and 2008 Household survey).

- It includes high density residential development to the east of the Inner City in Sunnyside and Arcadia.
- In the area around Pretoria University there are a significant number of expanding residential developments, communes and other student accommodation.
- The low density residential areas of Brooklyn, Muckleneuk and Groenkloof can typically be described as well established, high quality residential areas. Due to their proximity to the Inner City and the Brooklyn Metropolitan Node, these areas are constantly

under pressure for development. The access roads leading to the CBD through these areas are subject to intrusion of non-residential uses.

- Atteridgeville and Lotus Gardens formal townships
- Atteridgeville informal settlements
- Atteridgeville backyard dwellings

Vacant areas within the suburban environment have recently developed extensively with densities varying from 60 units per hectare to lifestyle and gentleman's estates. Rural densities are very low and only densities of 1 dwelling per 2 ha (management area) and 1 dwelling per 5 ha (rural area) are proposed.



### 3.8.5 MOVEMENT AND TRANSPORT SYSTEM

#### 3.8.5.1 Road Network and Private Transport

A number of arterial routes play a metropolitan role in that they form part of a major movement system forming an intricate network within the region but also contributing to the metropolitan movement grid by conveying passengers from outside the region to/from the CBD.

The former N4 Magalies toll road traverses the area in an east-west direction. Supporting Class 2 and 3 roads include WF Nkomo Street (R104) and Van der Hoff Road (R514), both orientated in an east-west direction. North-south linkages are limited in the western developed area with the main link being Transoranje Road (R55) through the Daspoort Tunnel.

The north-western part of the region is boxed in by the Witwatersberg in the south and the Magaliesberg in the north. These mountain ranges restrict the opportunity to cost effectively create high standard north-south road links and inter regional traffic is mostly restricted to the Mabopane Freeway (R80).

The University of Pretoria's Experimental Farm forms a barrier with regard to east-west linkage across the N1 to the CSIR and beyond.

A number of east-west Class 3 routes, such as Nico Smith Street, serve the region although they are generally not continuous throughout the area due to the location of the Spoornet Capital Park land preventing continuation.

There are a number of north-south routes in the region that include E'skia Mphahlele Street, Steve Biko Road, Paul Kruger Street, Bremer Street, Jan Shoba Street, Hamilton Street, Johan Heyns Drive and Florence Ribeiro Avenue.

East-west and north-south mobility is generally of a high standard.

#### 3.8.5.2 Public Transport

##### ***Rail***

The region is served by commuter rail in the northern (Moot) and Hatfield areas towards the Inner City. This section of the rail network forms part of the 'ring rail system'.

Hatfield is also linked to the CBD and to areas further south by the Gautrain high speed rail line. This network however has only two stations within the boundaries of the region, although extensions to Menlyn Metropolitan Node and other eastern areas are considered.

In the north-western part of the region parallel to Van der Hoff Road, there is a railway line from the west linking into the commuter network, but this line is in a state of disrepair and is not part of the commuter network. It may be necessary to invest capital to upgrade this line to an appropriate standard to accommodate a commuter rail service.

In the western part of the region an important rail link runs from Saulsville station to Pretoria station. This link is an important element in the public transport system used by commuters from Atteridgeville to Pretoria Industrial and Pretoria West through to the CBD job opportunities.

##### ***BRT***

Line 1 A and Line 2 A will be operational by 2017 between Rainbow Junction and Hatfield via the CBD.

##### ***Road based***

Minibus taxis as well as a number of public and private bus services play an important role in distributing passengers throughout the Inner City and beyond. Many bus and taxi services terminate in and around the Inner City.

In the western, mostly low income parts of the region, bus, taxi and rail transport play an important part in transporting commuters to and from the CBD and other areas of work.

The first section of the TRT (Tshwane Rapid Transit) bus system (Line 2 A) has been operational since 2015 and links Hatfield with the CBD.

### 3.8.6 SERVICE INFRASTRUCTURE

The region is generally well provided with service infrastructure. With development rapidly moving closer to the provincial demarcated urban edge and towards the open space area to the west of the region, development pressure in this area challenges the rate at which bulk infrastructure can be provided to accommodate expansion.

## 3.9 KEY ISSUES AND S.W.O.T ANALYSIS

In order to determine the key issues and development opportunities for the area an S.W.O.T. analysis for the region was done.

### 3.9.1 STRENGTHS

- The region is centrally located in terms of the metropolitan area and accessibility from all directions is good.
- The region holds the largest number of job opportunities in the metro.
- The region contains the Brooklyn node, which is fast growing to become the second largest financial zone of Gauteng.
- It contains of the Ring Rail and two of the three Gautrain Stations in Tshwane.
- Region 3 can be described as the educational heartland of the metropolitan area containing campuses of all 3 Tshwane Universities.
- The region is regarded as the Capital Core of the country with approximately 50% of the offices in the Inner City occupied by government departments and a number of embassies and foreign consulates located in this region.
- The region has the highest supply of A and B- grade offices in the metro.

- It has a number of landmarks and historic buildings providing tourist attractions and opportunities for new initiatives in this regard such as the Freedom Park development.
- The region is strategically located due to the CBD being included within its boundaries; there are good transport linkages between the region and the CBD.
- The Region has good road and rail infrastructure, facilitating north-south and east-west linkages.
- The area has good industrial infrastructure including ISCOR, Pretoria Industrial and the restricted industrial node along Charlotte Maxeke/Soutter Streets.
- There are many strategic land uses in the region, including the Loftus and Pilditch Sports stadium, show grounds, Pretoria West Power Station, and Fresh Produce Market.
- The Innovation Hub is located on the eastern boundary of the region, which will eventually have positive economic results to the benefit of the entire metro.
- The Hatfield station of the Gautrain is located in the region and will further economic development in the fledging Hatfield metropolitan node.
- Cultural integration has taken place, which is not quantifiable, but positive on a metropolitan level.
- The northern section of the region is in close proximity to the CBD and enjoys good linkage to the core and southern metropolitan areas.
- The Ring Rail runs through the region with well-developed stations and related infrastructure supporting it.
- The region has numerous sectors providing job opportunities consequently resulting in a decrease in unemployment.
- The region accommodates well established residential areas and effective supporting social infrastructure.

### 3.9.2 WEAKNESSES

- The Inner City has lost its position as the area where the highest hierarchy of goods are provided.
- This has led to urban decay especially along the fringes of the CBD and in the high density residential areas.



- The Inner City was negatively affected by the relocation of Provincial Government to Johannesburg.
- Limited secondary sector activity exists in the region.
- Increased traffic volumes have led to the deterioration of residences located along certain routes and subsequent changes in land use, albeit illegal in terms of the town-planning scheme.
- The closing of ISCOR has led to a general decline in the western areas.
- There is a lack of private sector investment in the west.
- Poverty levels are relatively high in the west.
- Large extensive land uses occupy land to the north of Atteridgeville which limits northern expansion of the low income area and leads to urban sprawl.
- There is a lack of suitable land for expansion of Atteridgeville.
- The provision of social services is inadequate in the low income areas.
- The tolling of the former N4 renders this route unsuitable as a mobility route to benefit the region.
- The fact that the PWV-9 western bypass has not been fully constructed contributes to poor connectivity.
- Linkage to the north-eastern part of the metropolitan area is very poor.
- East-west linkage within the region is not continuous, which has led to the underdevelopment of the western parts.
- The railway line running through the north-western part of the region does not carry passengers. The railway line is completely disused and in disrepair and dilapidated which is a weakness of the region.
- There is a huge need for student accommodation not provided for by the universities.
- Underlying dolomite in the southern parts of the region dictates the intensity of development as well as typologies.

### 3.9.3 OPPORTUNITIES

- The region is the focus of large scale public investment as identified in the City Strategy, the Urban Development Zone, the

Tsošološo Programme and the Tshwane Inner City Development Strategy.

- The possible development of the Pan African Parliament within the region.
- The Gautrain station in Hatfield will unlock development opportunities in the eastern part of the region, especially high-density residential development.
- The strategic locality of the UP Experimental Farm holds many opportunities if the potential could be further investigated.
- There is an opportunity to introduce residential densification around the Brooklyn node and along activity streets.
- The opportunity exists to introduce tourism development to the CBD in order to capitalise on the existing tourist attractions within the region.
- Development opportunities along the Apies River in accordance with the Mandela Urban Design Framework could be a catalyst for major urban regeneration.
- The cabinet approval of the Re Kgabisa Tshwane programme for re-investment in government offices and the public infrastructure to support the office re-development.
- The region includes strategically well placed land in terms of proximity to the CBD. In this regard the land to the north of Lotus Gardens and to the east of Atteridgeville (Dog Training School) should be unlocked for development.
- The construction of the PWV-9 western bypass will provide a linkage between the region and areas to the south and north, which will generate development opportunities.
- The land located to the east and west of the PWV-9 could provide possible residential opportunities.
- The re-generation of ISCOR or utilisation of the infrastructure is a development opportunity for the area.
- The Capital Park Container Depot presents an opportunity for redevelopment.
- Densification and provision of more job opportunities at the stations located on the Ring Rail is an opportunity for this region.
- The creation of a special tourism area in the residential area of Capital Park presents possible economic opportunities.

### 3.9.4 THREATS

- Illegal ribbon development along the major mobility routes providing access to the Inner City from the east.
- Urban decay due to loss of higher order markets to the regional nodes.
- Uncontrolled intrusion of student housing in low-density residential areas due to the major increase in student numbers without adequate provision of housing.
- Due to the strategic locality of the region in relation to the CBD, and the Ring Rail, parts of the region are under threat due to opportunistic re-development not in support of public transport. Strong planning guidance in these instances will be required.
- The lack in finances and commitment to implement strategic interventions, such as the redevelopment of Capital Park, the construction of the PWV-9 and the K16 will lead to urban decay and lost opportunities.
- Uncontrolled and uncoordinated development outside the boundaries of the municipality, placing pressure on the internal movement system and engineering services of the region.
- Western growth could threaten ecologically sensitive environments.
- Underlying dolomite will inform development intensity towards lower density development or alternative land uses.

### 3.9.5 ROLE AND FUNCTION

The metropolitan role and function of the region can be described as follows:

- The region contains the Capital Core of the nation and is the heart of the city.
- It provides job opportunities to a large section of the metropolitan population.
- It is the area containing the highest intensity of land uses.
- Region 3 can be described as the educational heartland of the metropolitan area.

- Brooklyn and Hatfield are strong decentralised nodes, and support the Inner City and the other Metropolitan Nodes as part of the larger poly-centric city.
- The region accommodates a large and expanding student population.
- The western areas provide residential opportunities for the lower and middle income groups.
- The western areas provide blue collar job opportunities.
- The far western areas play an important role in the provision of regional open space in the metropolitan area with ridges and wetlands defining the area in the north and south.
- The region provides residential opportunities for medium income communities, close to job opportunities and the CBD.

### 3.10 DEVELOPMENT TRENDS IN REGION 3

In general terms the most development between 2012 and 2015 took place in and around the major nodes in Region 3 such as the CBD, Hatfield and Menlyn. The BRT Line 2 also resulted in the start of large scale densification along the densification corridor. This trend is expected to continue in the short term.

#### TRENDS IN NODES

Revitalisation of the inner-city is taking place with a large number of developments taking place within the inner city. The developments focus on retail, office and residential units.

High density residential development focused on student accommodation is currently taking place in Hatfield, Arcadia, Brooklyn with a further 5000 units that will be developed over the next five years, as well as in Capital Park.

New office development is taking place in Region 3 around the Menlyn node and specifically on the western side of the N1. Offices and a large college are being developed close to the BRT Line 2 B trunk route in Lynnwood.

#### TRENDS ALONG CORRIDORS

The areas around the existing Gautrain and PRASA railway stations and around the proposed BRT / ITPN stations have been earmarked for higher density transit promotion zones. Densification should take place within a 700m



walking radius of a BRT / IPTN station. Densities in excess of 200 units/ ha are proposed.

The corridor along Line 2 A and B is expected to densify at a much higher rate than the other corridors in phase 1, due to the fact that the market has reacted to the BRT line specifically in this area and the need for housing around the University of Pretoria.

### TRENDS IN PREVIOUSLY DISADVANTAGED AREAS

A major renovation and extension to the Atteridgeville center was done between 2012 and 2014. A total of 5,355 affordable rental accommodation projects, spread across the Region, are at various stages of planning and include: the Townlands development near Marabastad, the Timberland development in Arcadia, the Thembelihle Village in the West Capital Precinct, and the Fort West development; in addition to planned projects within the areas of Lotus Gardens and Zandfontein. In this regard, the City has already committed funding to the installation of services during the 2015/16 financial year.

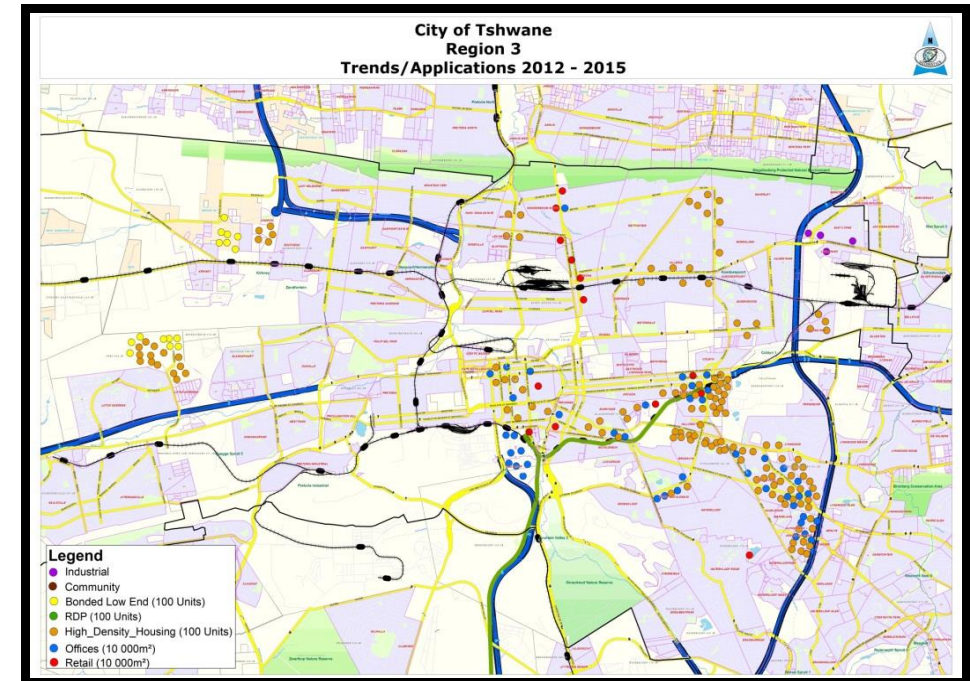
### TRENDS IN SUBURBAN AREAS

The suburban areas have not changed much in terms of densities but it is expected that large scale densification will take place along the two BRT routes in Region 3. In the west of Region 3 the first high density residential development in many years has taken place in Elandspoort. This 5 storey residential development is close to public transport and is the first of its kind in the West of the City.

### TRENDS IN RELATION TO SPATIAL PLANNING

The major developments in the region have taken place according to the prescribed planning of Region 3 namely in the nodes and corridors.

The RSDF for Region 3 calls for “drastic change in the built environment in terms of densities, typologies” and a move away from suburban typologies in densification zones along the BRT. This has taken place and the trend is expected to continue.



## PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK

### 4.1 INTRODUCTION

There are numerous initiatives directed at re-generation of the Inner City. This effort must be supported from a spatial point of view. In this regard reference is made to the Inner City Development Strategy, The Urban Development Zone, the Inner City Development Framework (Re Kgabisa Tshwane) as undertaken for the restructuring of Government Buildings and the Mandela Development Corridor Urban Design Framework.

The region accommodates numerous historic buildings, landmarks and places of interest. Support for the development of the tourism sector should be given on all planning levels.

Higher order land uses should be concentrated in nodes at points that are most accessible on a local level. Residential densification in accordance with the Compaction and Densification Strategy is supported. This entails densification around nodes and along major public transport routes.

The region contains numerous educational institutions including a number of tertiary institutions. Provision for housing for these students should be made within the region.

It is proposed that east-west linkage within the region must be improved and linkage to the north-eastern part of the metro must be upgraded (Zone of Choice). The Ring Rail must be supported in the region through the introduction of higher density residential areas around the stations.

Two Blue IQ projects were introduced into the region. The influence of the said projects on the region needs to be addressed in a holistic manner.

The location of the northern part of the region is such that it could, and should, play a more prominent role in supporting the CBD. Therefore the re-allocation of well-located land, previously earmarked for industrial purposes, is now promoted for residential purposes (such as in Kirkney).

The following sections will explain the different components of the Spatial Development Framework as indicated on the map in detail.

### 4.2 IMPROVE ACCESS AND LINKAGES

Linkage with the rest of the metropolitan area to the north and south must be improved through the provision of mobility routes, particularly the PWV-9 western bypass.

### 4.3 IMPROVE THE PROVISION OF SOCIAL FACILITIES

Lower income areas are subject to under-provision of social services. The proposed establishment of an urban core at Saulsville station should lead to a consolidation of efforts to provide such facilities in a focused manner.

The intermodal node to be developed at the Saulsville station will have a huge positive impact on the provision of needed community based facilities.

### 4.4 BROADEN RANGE OF HOUSING TYPOLOGIES AND UPGRADING OF RESIDENTIAL AREAS

The introduction of higher density housing in the strategic intervention areas will lead to the extension of the housing basis. It will increase the range of housing typologies, which could alleviate the pressure on the need for extension of the residential area in a westerly direction.

Existing residential developments will need to be upgraded and improved. This is proposed through consolidation of higher order land uses in nodal areas at points of highest accessibility within the region.

These objectives will have to be pursued and steps implemented in the very short term to be able to reap the spin offs. These efforts will have to be maintained in a sustainable manner so as not to fall further behind in the provision of housing units.

#### 4.5 CONSERVATION

The region is surrounded by sensitive environmental areas particularly along the Magaliesberg, the Daspoortrant and the Schurveberg ranges and a strong conservation focus should be introduced to curb the threat of destruction. This will need conscious proposals to redirect development to more suitable areas.

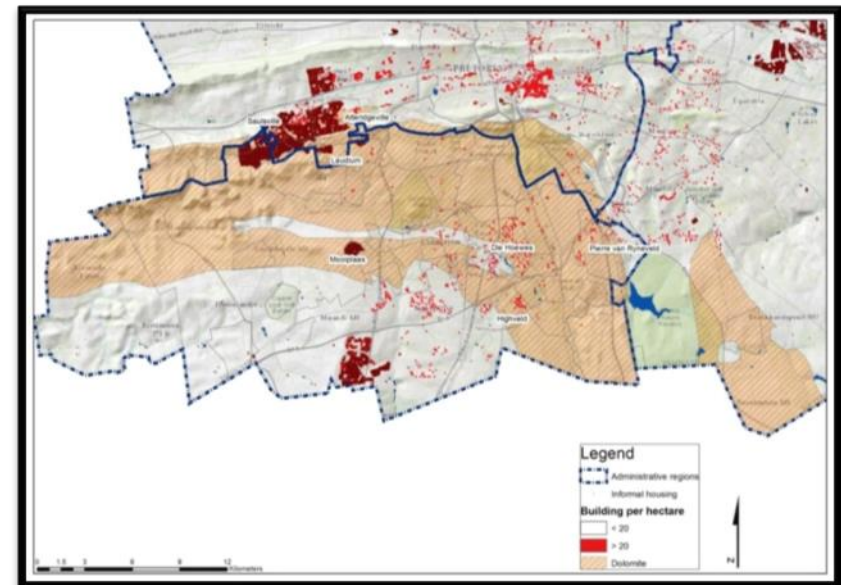
The western area of Region 4 (Centurion) as well as the western and south-western parts of Region 3 (west of the proposed PWV-9) is under pressure for development. The natural direction of growth can be attributed to the following:

- Spontaneous westward growth of Region 4;
- The rural development axis between Johannesburg and the Hartebeespoort Dam (Road P103-2);
- Lanseria Airport with economic activities;
- Diepsloot; and
- Olievenhoutbosch

Large portions of this area consist of elements of environmental importance. These environmentally sensitive areas need to be protected as a major environmental resource of the city.

#### 4.6 GEOLOGY

The geological conditions in the south-western part of the region are predominantly Dolomitic limestone formations (Dolomite) with Syenite intrusions and Granite areas. Instability may occur natural but is expedited by many other orders of magnitude as a result of human activities. The primary triggering mechanisms in such instances include the ingress of water from leaking water-bearing services, poorly managed surface water drainage and groundwater-level drawdown. Instability can occur in the form of sinkholes and dolines, and could result in loss of life and limb.



Virtually every land-use application will only be considered once suitable engineering-geological investigations have been undertaken in order to assess the risk of ground surface and structural damage. Depending on the site specific characteristics and depth of the dolomite, this can have a decisive influence on the typology and intensity of land uses. Much can be achieved by geotechnical

engineering solutions, construction reports and proper risk management plans.

It must be emphasized that any recommendations on land-uses and densities made in the southern-western part of the Region, are subject to the site specific conditions revealed after drilling has taken place. Any recommendations on land-uses and densities made in the RSDF, will not overrule any other legislation relating to geological conditions.

#### 4.7 METROPOLITAN NODES / TRANSPORT ORIENTATED DEVELOPMENT NODES (TOD)

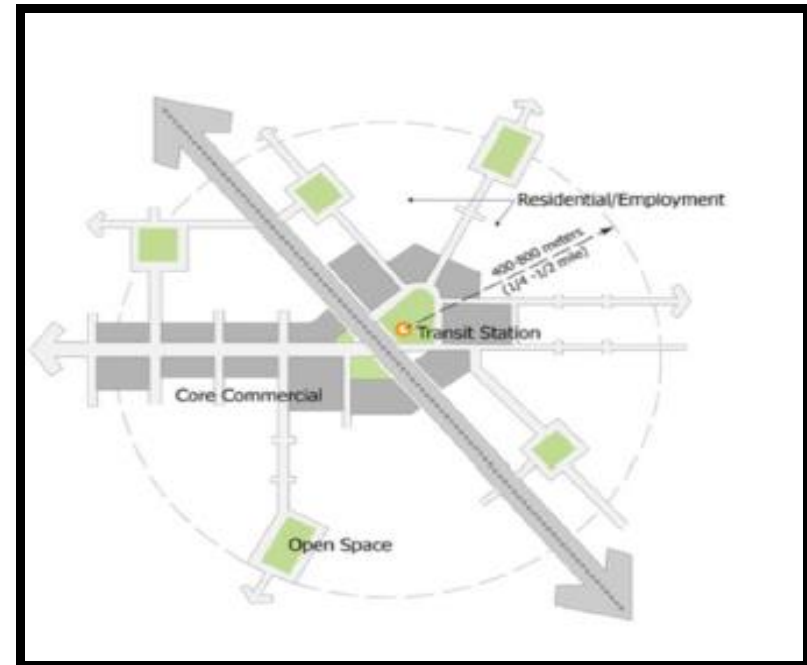


The Metropolitan Spatial Development Framework (MSDF) proposes a number of Metropolitan / Transport Orientated Development Nodes and Urban Cores. The Tshwane Retail Strategy is also applicable to these nodal areas of metropolitan importance.

Metropolitan Nodes are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Transport-orientated development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (i.e. a train station, metro station, BRT station stop, or taxi rank, bus terminus), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs are generally located within a radius of 0 to 900 m from a transit stop, as this is considered to be a convenient distance for pedestrians. In terms of TOD it is important to provide a pedestrian-friendly

environment and mixed use areas where the needs of commuters and residents can be addressed in one place. Small business opportunities must be promoted around the stations and along the trunk routes.

It is further important that the mix of land-uses around the TOD should generate ridership at different times of the day (ideally 24 hours). According to the recent SAPOA publication Developing a Collective Approach to Mixed-use Development in Transit-Orientated Development Precincts “place to work, to live, to learn, to relax and to shop for daily needs should be located as close to the stop/station as possible”. Transit non-supportive uses such as car sales, car washes, warehouses, storage and low intensity industrial uses should be located elsewhere.



The following nodal areas are highlighted in terms of the MSDF:



#### 4.7.1 CAPITAL CORE – INNER CITY

Region 3 includes the Inner City, which is the strongest node in the metropolitan area in terms of job opportunities, retail space and offices. Due to a change in the client profile of the Inner City, this node has lost its position as an area where the highest hierarchy of goods are provided.

Exodus of higher order uses to other metropolitan nodes led to a change in the user profile of the Inner City over the last decade. The Inner City is mostly a trade destination for residents dependant on public transport and residents of the higher density residential developments surrounding the Inner City.

The upgrading and regeneration of buildings and land uses in the Inner City in accordance with regeneration plans, will eventually lead to attracting higher income groups to the Inner City. Catalytic projects such as the Mandela Development Corridor will play a major role in upgrading efforts and should receive the full support of all role players.

The Inner City / CBD has approximately 50% of the metro's A and B grade offices. Efforts to consolidate the government departments within the capital core through the Re Kgabisa Tshwane project should be supported to enhance the capital city status of the CBD.

Head offices seeking to relocate to Tshwane should be accommodated in the Inner City area and every effort should be made to support such development.

Proposals contained in the Tshwane Inner City IDF and support via the Urban Development Zone initiative is welcomed and should be used to initiate intervention. Furthermore, detail proposals contained in the Mandela Development Corridor and the Pretoria Inner City Project of the Government (Re Kgabisa Tshwane) should inform regeneration of the Inner City.

New development in the CBD is currently focused around the Gautrain station and is predominantly office developments. The

implementation of the Re Kgabisa Tshwane Programme has also resulted in numerous office buildings being redeveloped around the inner city and has contributed to the increase in the number of rezoning applications that have been received for office development in the CBD. Retail developments are also on the increase, although on a smaller scale, following the development of the Bloed Street Mall. Residential developments in the CBD currently take place through the conversion of old office buildings to residential flats.

#### 4.7.2 BROOKLYN METROPOLITAN NODE

In terms of the Tshwane Spatial Development Strategy: 2010 and Beyond (TSDS), Brooklyn is also classified as a Metropolitan Activity Node with the same definition and functions assigned to it as in the MSDF.

In the Spatial Development Framework: Central Western Region (a previous RSDF) the prominent features pertaining to the Brooklyn Node and its surrounds are that the areas to the north and east of the Brooklyn node are earmarked to retain an exclusive residential character. The area between the existing Brooklyn Node and Florence Ribeiro Street (Nieuw Muckleneuk), as well as along Jan Shoba Street, could be considered for future mixed land-uses.

##### Retail Development Trends

There are no immediate major retail developments foreseen in the Brooklyn Node. Future retail developments will be considered on merit.

#### 4.7.3 HATFIELD METROPOLITAN NODE

Hatfield is an existing mixed land-use node that has evolved into one of the city's most significant metropolitan nodes outside the CBD. The area is characterised by strong retail, motor service and office components. It also has certain unique elements such as a large number of diplomatic establishments and a large resident student community of the adjacent University of Pretoria.

The importance of the Hatfield metropolitan node is further emphasized by it having been chosen as one of only three Gautrain station sites in Tshwane, the other two being in the CBD and in Centurion. In addition, the existing Metrorail and the BRT (Bus Rapid Transit) system running through the node, makes it a public transport hub with excellent accessibility for all traffic modes.

#### **Retail Development Trends**

Hatfield is earmarked for major redevelopment in response to the Gautrain and the expansion of the University of Pretoria. Retail developments to the south of the railway line will be limited to convenience retail. Developments to the north of the railway line of approximately 50 000m<sup>2</sup> over the medium term are anticipated.

The area east of Jan Shoba Street will be redeveloped into a high density residential area. It is anticipated that there will be a need for convenience retail in this area over the medium term.

No additional shopping centres are expected for the area to the West of Hill Street towards the CBD.

#### **4.7.4 SAULSVILLE URBAN CORE**

The area around the Saulsville railway station has been identified as an Urban Core. This activity area is linked to public transport facilities and represents the environment where high levels of public sector investment are required. The intention is to group economic, social and residential opportunities in mixed-use environments within these core areas.

#### **Retail Development Trends**

Future retail development should be focused around the Station node and have to include social and community services to stimulate a sustainable community development. The existing station area is expected to offer a wider tenant mix and act as a stronger draw card/catalyst for further development.

#### **4.7.5 MENLYN METROPOLITAN NODE**

The Menlyn Metropolitan Node is not located within Region 3, but townships to the west of the N1 within Region 3 are within the sphere of influence of the node. Detail of the Menlyn node is contained in the Region 6 RSDF.

#### **4.8 REGIONAL / LOCAL / SPECIALISED NODES**



The RSDF indicates a number of nodes (either existing or emerging) which are important on a regional and local level.

The extension of existing, well located nodes should however be encouraged before the creation of new nodes. As in the case of existing nodes, it is proposed that higher density residential uses be introduced as part of the node. It should also include social and community facilities.

Typically community centres and neighbourhood centres should include both commercial and social facilities, such as retail facilities, schools, professional offices and community facilities, where such facilities are absent in the surrounding area.

For these nodes to function properly they should form part of a hierarchy of nodes, directly related to the characteristics of the population it serves.

The hierarchy of retail centres as proposed in terms of the “Retail Strategy” should be applied to the region, subject to need and desirability within the region.

## Summary of strategy

**Renewal Strategy:** In many instances retail facilities have become outdated, the increase in passing traffic has created a problem and in many instances parking facilities are inadequate. The revitalisation, upgrading and improvement of these areas should be encouraged.

Once a particular location or structure is no longer viable for retail purposes, it is recommended that the structure be demolished ~~and~~ or converted for other uses. This strategy will be driven by the decrease in return on investment in a particular area, large vacancies and the reluctance of retailers to move into a particular area. Urban decay, poor locations and unsafe areas will be the main problems to deal with. This should also form part of a broader revitalisation strategy for areas experiencing urban decay.

A renewal or upgrade strategy should also be followed by shopping centre owners. In most cases shopping centres are in need of a minor upgrade/ major maintenance overhaul at intervals of 5 to 7 years.

**Maintenance strategy:** In certain cases shopping centres have become outdated and routine maintenance no longer effective and the upgrading or the redevelopment of the centre imperative. A maintenance strategy will mainly be applicable in already built-up areas.

**Expansion strategy:** The change and growth in consumer demand in a particular area as well as new retail trends will 'force' landlords to expand their existing retail facilities or to include new retail types. This is especially applicable in the case of regional and super regional centres, but can also be relevant for existing business clusters. Most regional centres continuously expand to make provision for internal growth and to accommodate new retail concepts or trends. Cognisance should be taken of this particular need. This growth will mainly be driven by the already proven success of a particular centre, its location and the needs of the market.

**Infill strategy:** In this instance reference is made to infill in already built-up residential areas where retail has been lacking or undersupplied. This type of development will then capitalise on an existing market and will

prevent major outflows from a particular area to other shopping destinations.

The most important infill gaps currently exist in the traditionally black urban areas, although it is not necessarily restricted to these areas. There is currently major interest in the development of shopping centres in these areas, and development in these areas should be encouraged. The developments range from small neighbourhood to regional (large community) centres.

It is important to note that once the area is sufficiently serviced, the Infill Strategy must be replaced by the Maintenance and Expansion Strategies, and where new growth occurs, the Follow-the-roofs strategy.

**'Follow-the roofs'/ new growth areas strategy:** This strategy focuses on new growth areas and the provision of retail facilities once a certain threshold level of houses and disposable income is reached.

In the case of a 'follow the roofs' strategy, timing is of critical importance. Should a centre be built too soon the retail performance will be low and casualties, especially amongst the smaller tenants, will be high. Further growth in an area should also be such that the trade area of the proposed centre will fill up sooner rather than later.

**Nodal strategy:** Nodal or urban core strategy is applicable where larger retail facilities will create agglomeration advantages for complementary retail facilities. Metropolitan nodes and Urban cores are those nodes or urban centres that fulfil a city wide function. These nodes are not stagnant and will expand over time. It is important that these agglomeration nodal developments take place in close proximity of small to super regional centres. Different types of retail facilities are on offer and not all can be accommodated in a traditional shopping centre. The best locational advantages of these complementary retail facilities are in close proximity to the existing regional centres. Other types of retail nodes where agglomeration benefits could be created could also be established.

The agglomeration effect is created by the catalytic nature of regional centres. The node will grow to include a variety of facilities and to reach a stage where the required tenant mix reaches the necessary critical mass.



**Modal interchange strategy:** This type of facility depends mainly on the nature of the commuters, the area as well as the different transport modes used. Land uses in these areas should be focussed on transport-orientated developments, with retail focussing on convenience and day-to-day goods.

Higher density areas will therefore have a higher frequency of nodes in a smaller geographical area. The ideal location of such nodes will have to be determined through retail studies taking into account all factors that could have a significant impact on the success of such a node.

To ensure that prospective applicants who intend developing retail facilities sufficiently address all aspects in their applications and are thoroughly briefed on all the requirements of the Municipality with regard to such developments, a pre-application consultation should be followed, where the following aspects will be addressed:

- Locational Requirements
- Urban Design
- Pedestrian movements (walkability)
- Parking requirements and layout
- Taxi ranks and public transport facilities
- Informal Trade
- Site development plans
- Retail and traffic impact studies.
- Impact on surrounding land uses
- A feasibility study will be required for retail developments larger than 4000 square metres.

Various specialised medical nodes are also encountered in Region 3, particularly at some of the larger hospitals such as Eugene Marais in Les Marais and Zuid-Afrikaans in Muckleneuk. At these nodes medically related uses are supported in the areas immediately adjacent to the hospitals.

#### 4.9 JOB OPPORTUNITY / MIXED USE AREAS

The Inner City core area contains the traditional CBD land-uses of retail, offices and services. Surrounding the core area is an area of lower density mixed land-uses which is aimed at providing support to both the core area and the other residential areas. The precincts, as proposed by the Re Kgabisa Tshwane programme, which are located along the pedestrian spines (government walk – Paul Kruger- and WF Nkomo Street) can be described as an intensified activity spine with mixed land use and served by dedicated public transport lines. Development along these spines is less constricted by access and mobility of private transport and form part of an extended activity area along these pedestrian spines.

The Brooklyn, Menlyn and Hatfield Metropolitan Nodes consist of retail, offices and higher density residential uses. The Inner City, Brooklyn, Menlyn, Hatfield, Hillcrest and the Innovation Hub are major job opportunity areas not only in the region but also in Tshwane as a whole.

The main economic opportunities of the region are located in Pretoria Industrial Township, Carl Street, Charlotte Maxeke Street and Soutter Street which presently accommodates 46 000 job opportunities. Despite this number of jobs, there is large scale poverty and unemployment.

A concerted effort should be launched to attract investment to the western part of the region especially the re-generation of ISCOR to stimulate the creation of job opportunities.

The northern part of the region (the Moot) currently has 37 000 job opportunities in Hermanstad, Van Der Hoff Road, Paul Kruger Street, Steve Biko Road, Gezina, Rietfontein and Koedoespoort. The adequate

provision of job opportunities within this part of the region indicates low levels of unemployment. It is important to support these economically active sectors to maintain and ensure sustainability within the region. Support should be given through the improvement of mobile linkage within the region as well as with other regions and the provision of improved public transport facilities.

The introduction of mixed land uses that are compatible with residential uses is proposed along Fred Nicholson Street, between E'skia Mphahlele Street and Steve Biko Road. A local precinct plan should be prepared for this area to guide development on a local scale. The eastern half of the street block west of Loftus Versveld Stadium (along Kirkness Street) as well as the erven along the southern side of Ayton and Park Street up to Maple Street in Sunnyside are also earmarked for Mixed land-uses that are compatible with residential uses.

This concept of mixed uses is also proposed for the Capital Park residential area. There is a demand for tourism related land uses in this area due to the proximity of the Rovos Rail headquarters to the north of the neighbourhood and the national zoo and the CBD to the south. It is proposed that a precinct plan be prepared for this area to address design guidelines and to ensure an environment of high quality.

Mixed uses are proposed for certain areas along Van der Hoff Road. It is proposed that residential uses be included in this area previously earmarked for industrial uses. Industrial areas are indicated at Hermanstad, west of E'skia Mphahlele Street, Kirkney and portions of the farm Zandfontein 317 JR.

The Innovation Hub is located in the eastern part of the region on the UP Experimental Farm grounds. This Blue IQ project will initiate technological development in Gauteng. Job opportunities will be created, although these will be mostly for skilled workers.

The open space erven along Lynnwood Road between Atterbury and the N1 are expected to be developed as mixed use over time. Discussions with GDARD and the Municipality's Environmental Planning Section must be held before any development or change of land-use application can be submitted, to determine whether these erven are subject to a possible

E.I.A. survey. Before any development or change of land-use can take place on these erven, access to the relevant erven should be discussed with the Traffic Engineers Department. Once all the above processes indicates that the erven may be utilised for purposes other than intended for, the correct procedure for the closure of the Park erven should be followed, where after the erven should be rezoned accordingly.

#### **4.10 FUNCTIONAL ROAD CLASSIFICATION AND ACTIVITY MATRIX**

The movement system in an urban environment is literally the arteries of the city – without these linkages there can be no economy, no inter-relatedness, and no “life”.

Movement systems can be used to create access, structure settlements, and promote integration, diversity and mixed land use. Movement (flows of people, finance, goods) defines the energy networks of settlements. Accordingly, more continuous lines of movement represent planes of greater accessibility and, therefore, become the more desirable connection for intensive use. Significantly, the energy potential contained in lines of movement is released through stopping, not through movement.

Different movement modes have varied patterns of stopping. Accordingly, they establish different rhythms of accessibility and the co-ordination of different modes enables certain points to be strongly reinforced.

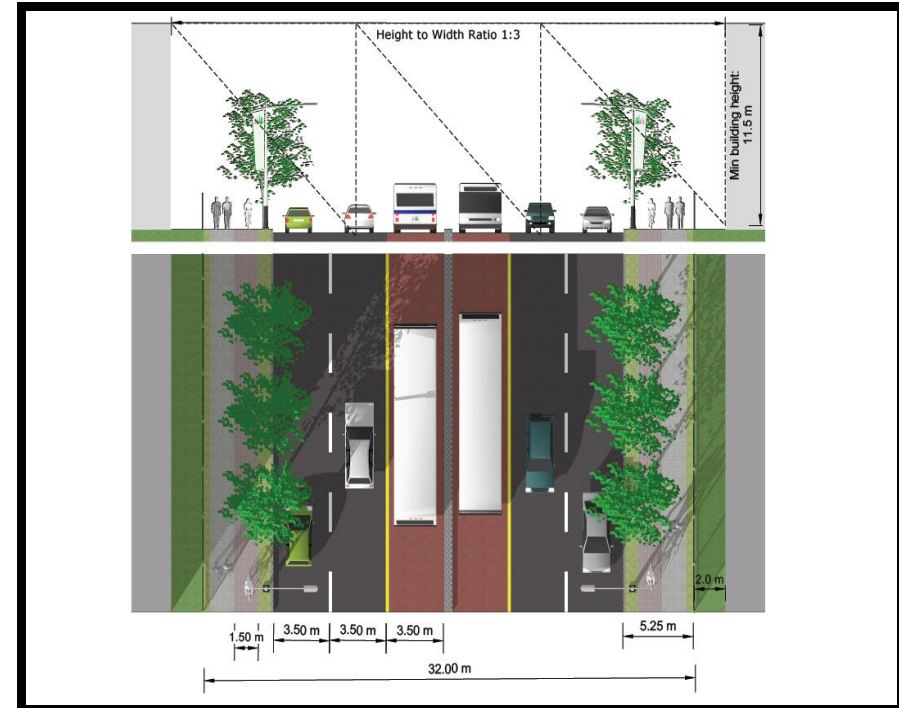
By creating a complex and diverse pattern of accessibility, all activities, both large and small, can naturally find a place within the structural system, depending on their need for accessibility and their ability to pay for it. Movement systems, therefore, provide a powerful planning mechanism to bring about mixed, but broadly predictable, patterns of activity, provided activities are allowed to respond to them. Existing and future mass transport routes should also be integrated into this urban system.

The movement system is an enabling feature of a city as it enables the free movement of goods and services through a region. Development trends are directly influenced by accessibility and therefore strategic planning with regard to movement is of utmost importance in the context of a growing metropolitan centre.

Land use changes for the consolidation of erven adjacent to existing nodes in residential areas will be considered on merit. Erven adjacent to roads that link such nodes with mobility or activity function within a residential area may be considered on merit. The merit will be evaluated in terms of the guidelines as set out in this chapter.

However, development along more sections of the spines should only be permitted subject to suitable access which would normally mean from internal roads. Development along the spines should only be permitted subject to access management strategies to protect the mobility function of these roads.

**Transport Corridors** - For the purpose of this RSDF these routes are defined as the approved BRT routes within Region 3. They are regarded as the main public transport channels of the region, focussing on the prioritising of public transport and non-motorised transport over private transport. A pedestrian/cyclist orientated environment with appropriate traffic calming for cars and densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.



The introduction of higher densities along these spines should be encouraged. Detail BRT route and station planning for Atterbury Road, Lynnwood Road and Jorrison Street will determine future land uses with the focus on the stations and surrounding areas.

The mobility function of Justice Mahomed Street and Brooklyn Road is of great importance between the Metropolitan Nodes of Menlyn, Brooklyn and the Inner City. It is important to facilitate development in such a way that the mobility function is not compromised.

The Mandela Development Corridor (MDC) is concentrated along Nelson Mandela Drive (M3). This north-south route plays an important role with regard to mobility and also acts as the boundary between the Inner City and Sunnyside / Arcadia. An urban design framework has been completed

for the corridor. The framework makes provision for clusters along the corridor and the nature of these clusters range from arts and culture to government precincts.

The MDC and Re-Kgabisa Tshwane (an initiative from the Department of Public Works in conjunction with the COT), makes provision for considerable change along portions of Paul Kruger and Helen Joseph Streets. The affected areas will accommodate government precincts constructed around National Government Buildings of the various ministries. The Department of Public Works will finalise a design framework for the precincts, and it is expected that more parts of Helen Joseph Street will be closed off to vehicular traffic. The former Church Street (R104) possesses a strong mobility function as an east-west route through the city. It also links up areas from Silverton through to Atteridgeville and Lotus Gardens. The character of the road changes from Mobility Road to Activity Spine to Mobility Spine and in the Pretoria (West) area it has spurred on limited nodal development.

The former N4 freeway currently contains toll plazas in close proximity to the city centre. If the toll closest to the CBD is to be lifted, the mobility function of this road would increase tremendously due to the convenience of using it as a link to the west as an alternative to WF Nkomo Street, especially by mini-bus taxis. In the Pretoria (West) area, Maunde Street contains a strong mobility function until it enters into Atteridgeville. It is hoped that in the future, Maunde Street would give rise to greater activity and thus function as a bona-fide activity street in Atteridgeville.

Transoranje Road/Bremer Street (R55) is the most important north-south inter-regional link forming part of the major mobility spine (the MDCDC) from Region 3 through to Region 4 (Centurion) in the south. Of lesser importance but still fulfilling an important north-south link is the Hornsnek Road (M17), which links Region 3 to Region 1 in the north-west of the metro.

The region contains numerous prominent arterials. Steve Biko Road and Johan Heyns Drive (the M5 one-way pair) have a strong activity function. However, in the context of the Metropolitan region, these routes also play a significant role with regard to north-south mobility. The pair is one of only

a few routes that allow access over the Magaliesberg. Paul Kruger Street and Mansfield Avenue (R101), running from the CBD in a northerly direction, operate parallel to each other. Mansfield Avenue was developed in order to relieve traffic congestion on Paul Kruger Street, which contains a mix of retail and office activity, whereas Mansfield Avenue will play host to high density office space with residential uses as well.

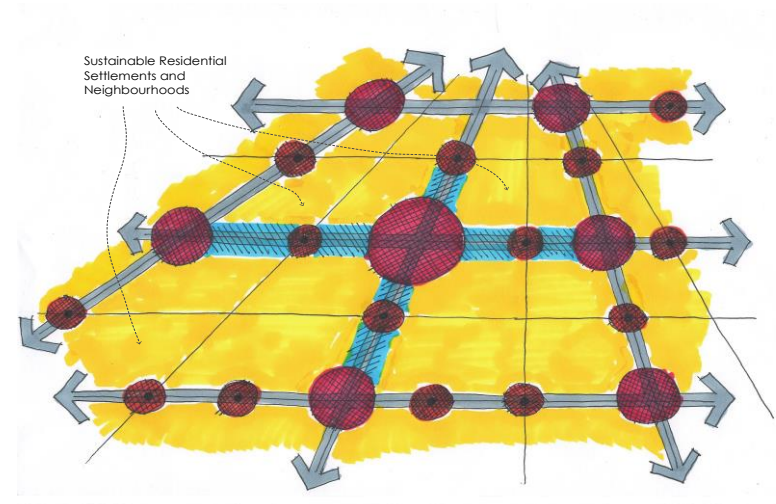
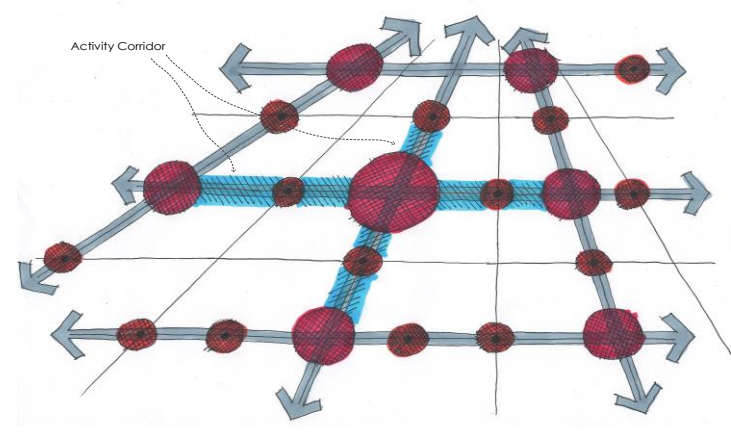
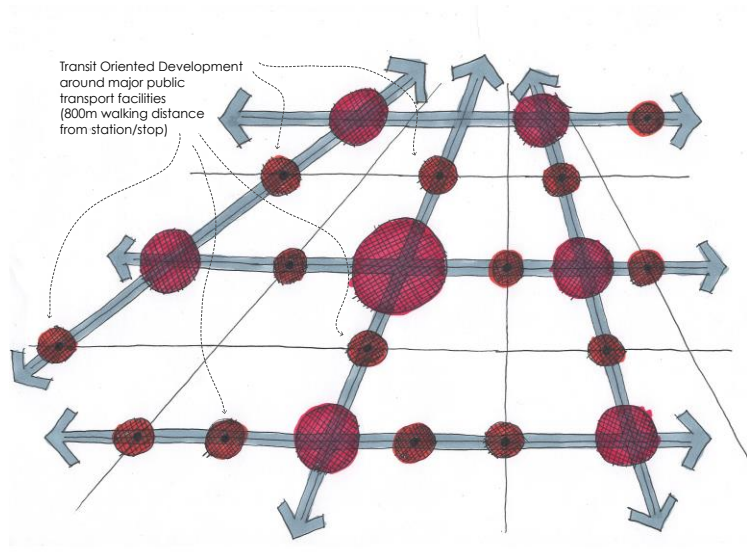
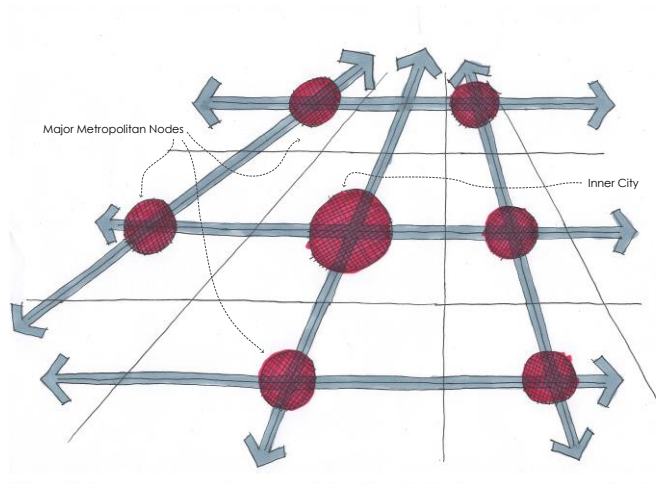
Van der Hoff Road (R514) and Nico Smith Street (M8) are designated as activity spines in the region. These spines have a mobility function which needs to be protected by not permitting direct access to individual land uses. Activities along the length of these roads should be located in nodes or at localities responding to access opportunities. Residential densification along these roads is proposed to capitalise on the public transportation advantages that exist.

Jan Shoba Street from Stanza Bopape Street up to Lynnwood Road is an existing activity street, as is Lynnwood Road from Jan Shoba Street up to Kings Highway. However, development along more sections of these spines should only be permitted subject to suitable access which would normally mean from internal roads.



Land-use changes, subdivisions and consolidations of erven adjacent to existing nodes in residential areas will be evaluated in terms of the development guidelines as indicated in this section. Erven adjacent to roads that link such nodes with mobility or activity function within a residential area may be considered on merit. The merit will be evaluated in terms of the development guidelines as set out in this chapter.




## Spatial Concepts for Nodes and Corridors





The interrelationship between a proposed functional road classification and an activity matrix is illustrated by the following table below:


Functional Road Classification	Land Use	Function and Design	Roads and Streets
<b>Highways</b>  <b>(Class I)</b>	<ul style="list-style-type: none"> <li>No Direct Access to land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Accommodate mainly national, regional and longer distance metropolitan trips.</li> <li>No traffic lights on these roads</li> <li>Access is restricted to the interchanges only.</li> </ul>	<ul style="list-style-type: none"> <li>N1 (Eastern Bypass),</li> <li>former N4 (Magalies Toll Road),</li> <li>N14 (Ben Schoeman Highway),</li> <li>R21 (Nelson Mandela Freeway, south of Solomon Mahlangu Drive),</li> <li>R80 (Mabopane Freeway),</li> <li>Proposed PWV-9 (Western Bypass)</li> </ul>
<b>Mobility Spine</b> <b>( Class I &amp; II)</b> 	<ul style="list-style-type: none"> <li>Nodal Development at intersections.</li> <li>Mixed land uses at intersections.</li> </ul>	<ul style="list-style-type: none"> <li>Little (exception) or no direct access to land uses adjoining the spine. Access is usually through side roads and service roads.</li> <li>Involves inter-metropolitan and inter-regional routes</li> <li>No on street parking permitted</li> <li>Very few traffic lights</li> <li>Restricted pedestrian movement</li> </ul>	<ul style="list-style-type: none"> <li>Stormvoël/Nico Smith/Frederika (M8);</li> <li>Baviaanspoort (M15);</li> <li>CR Swart/Soutpansberg (M22);</li> <li>Kilnerton;</li> <li>Pretoria/Elias Motswaledi Street (R104), except for sections through Silverton, between End and Jan Shoba Street and the CBD between Hamilton and Quagga;</li> <li>Pretorius/Francis Baard Street (M2), except in the Hatfield node and to the west of Hamilton;</li> <li>Justice Mahomed Street;</li> <li>Brooklyn road between Lynnwood road and Hazelwood road.</li> <li>Garstfontein (M30), east of Matroosberg; Dely / Duxbury (M30) up to Jan Shoba;</li> <li>Rigel/Florence Ribeiro Avenue (M9);</li> <li>Solomon Mahlangu Drive (M10);</li> <li>Christina de Wit (M18);</li> <li>Nelson Mandela (R21/M3) north of Solomon Mahlangu Drive;</li> <li>George Storrar / Middel / Jan Shoba Street (M7), except the sections through the Brooklyn &amp; Hatfield nodes;</li> <li>Gordon/Stead/Codonia (M7) up to Collins;</li> <li>Frates (M29);</li> <li>Steve Biko (M5 north) except between</li> </ul>



Functional Road Classification	Land Use	Function and Design	Roads and Streets
			<ul style="list-style-type: none"> <li>Malherbe &amp; Hertzog;</li> <li>Johan Heyns Drive (M5 south);</li> <li>Hamilton / Troye / Elandspoort / Steve Biko (M5);</li> <li>E'skia Mphahlele Drive (M1);</li> <li>Kgosi Mampuru/Old Johannesburg (R101);</li> <li>WF Nkomo Street (R104) west of Quagga;</li> <li>Magalies Toll Road/ Vom Hagen (former N4) east of Transoranje;</li> <li>Proposed K16;</li> <li>Van der Hoff (R514) west of Bremer;</li> <li>Hornsnek (M17);</li> <li>Bremer / Transoranje (R55);</li> <li>Quagga (R55/M22);</li> <li>Roger Dyason/Eeufees (M7)</li> </ul>
<b>Transport Corridors</b> <b>(Class II and III)</b> 	<ul style="list-style-type: none"> <li>Mixed land uses at BRT stations.</li> <li>Mixed uses along sections of trunk route. Mixed uses to front onto trunk route.</li> <li>High density residential along corridor</li> <li>Nodal development with a mixed use character (developments concentrated at intersections and around BRT stations)</li> </ul>	<ul style="list-style-type: none"> <li>Public –transport orientated – with the prioritising of public transport and Non – Motorised Transport over Private transport.</li> <li>Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate.</li> <li>Road space reallocation aiming to re-balance provision between private cars and more sustainable modes such as no motorised transport and the BRT.</li> <li>Limited accommodation for private cars on the Corridor.</li> <li>High accessibility for pedestrians.</li> </ul>	<ul style="list-style-type: none"> <li>Lynnwood Road (from University Road to Atterbury Road) Line 2 B</li> <li>Atterbury Road (Lynnwood to N1) Line 2 B</li> <li>Paul Kruger (Line 1 A)</li> <li>Mansfield (Line 1 A)</li> <li>Nana Sita (Line 2 A)</li> <li>Kotze (Line 2 A)</li> <li>Jorissen (Line 2 A)</li> <li>Burnett between Jan Shoba and University; (Line 2 A)</li> </ul>



Functional Road Classification	Land Use	Function and Design	Roads and Streets
<p><b>Mobility Roads</b> </p> <p><b>(Class III and IV)</b></p> <p>Primarily serves intra-metropolitan traffic. While this route is characterised by through traffic, trends indicate pockets of mixed use developments located alongside.</p> <p>It serves as the most important linkages between the Metropolitan Activity Areas (Capital Core/Metropolitan Cores/Urban Cores/Specialised Activity Areas)</p>	<ul style="list-style-type: none"> <li>• Medium to high density residential as per density map.</li> <li>• Nodal development with a mixed use character</li> </ul>	<ul style="list-style-type: none"> <li>• Limited direct access permitted (not frequent)</li> <li>• Services roads to enhance access opportunities</li> <li>• On street parking also permitted close to major intersections and in the vicinity of significant nodes only</li> <li>• Plays a collector and distributor function though trips are of a short distance</li> <li>• Pedestrian movement along the route in various parts</li> <li>• Public transport very important along Mobility Roads</li> <li>• Provide public transport facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Lynette/Koedoespoort/Cresswell;</li> <li>• Dickenson/ Bosloerie;</li> <li>• Collins between Codonia and Fry;</li> <li>• Fry between Collins and the Hardy Muller circle;</li> <li>• Meyer;</li> <li>• Hertzog;</li> <li>• Ben Swart;</li> <li>• Pierneef/Adcock/Flowers/ Trouw/Jacobs;</li> <li>• 18th south of Meyer to Frates;</li> <li>• Kings Highway;</li> <li>• Albert/Crown/Main/Waterkloof/Fehrsen;</li> <li>• Dely south of Garstfontein;</li> <li>• Park up to Festival;</li> <li>• Government between Eastwood and Hamilton;</li> <li>• Tom Jenkins/Eastwood/Kirkness;</li> <li>• Leyds between Stanza Bopape Street and George Storrar;</li> <li>• Elephant in Waterkloof Ridge and Monument Park; Staatsartillery;</li> <li>• Rebecca between Staatsartillery and Vom Hagen; Strachan/Rod;</li> <li>• Maunde;</li> <li>• Khoza;</li> <li>• Masopha;</li> <li>• Schurveberg;</li> <li>• Hlahla/Komane/Moroe/Tlou;</li> <li>• Seeiso/Mareka;</li> <li>• Acridian/Anthesis/Citron;</li> <li>• Charl/Pretoria/Kenneth west of Hornsnek;</li> <li>• Schuurmanns;</li> <li>• Hendriks/Charl Cilliers up to Denyssen;</li> <li>• Sarel west of Charl Cilliers;</li> <li>• Denyssen/Van Rensburg/De Beer up to Steve</li> </ul>

Functional Road Classification	Land Use	Function and Design	Roads and Streets
			Biko; <ul style="list-style-type: none"> <li>• Solomon/Franzina up to Paul Kruger; Fred Nicholson</li> <li>• Frates/15th/Parker,</li> <li>• Micheal Brink (Nico Smith) / Frederika (M8)</li> </ul>
<b>Activity Spine</b>  <b>(Class III and IV)</b> These streets are characterised by slower moving traffic due to the nature of activity along the street (activity is of paramount importance, mobility is compromised to allow the activity). The street provides a focus for various non-residential and medium to higher density residential developments that create a vibrancy and specific identity.	<ul style="list-style-type: none"> <li>• Mixed uses along the spine</li> <li>• Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>• Urban design guidelines important to guide the development along the spine.</li> </ul>	<ul style="list-style-type: none"> <li>• Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate</li> <li>• High accessibility to land and normally only gaining access from a service road.</li> <li>• Mixed land uses along service roads</li> <li>• High density development with mixed uses must be promoted in suitable locations along these routes. On-street parking where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>• Stanza Bopape Street (R104) through Silverton and between End and Jan Shoba Street;</li> <li>• Pretorius/Francis Baard Street (M2) through Hatfield;</li> <li>• Garstfontein (M30) between Matroosberg and Dely;</li> <li>• Middel/Jan Shoba (M7) between Dey and Justice Mahomed and between Lynnwood and Stanza Bopape;</li> <li>• Codonia (M7) north of Collins;</li> <li>• Steve Biko Road (M5) between Malherbe and Hertzog;</li> <li>• Jeppe/Steve Biko (M5) between Justice Mahomed and Soutpansberg;</li> <li>• Charlotte Maxeke/Soutter (M2); Stanza Bopape/Helen Joseph/WF Nkomo (R104) between Leyds and Quagga;</li> <li>• Van der Hoff (R514) between Bremer and E'skia Mphahlele;</li> </ul>

Functional Road Classification	Land Use	Function and Design	Roads and Streets
<p><b>Activity Street</b> </p> <p><b>(Class IV and V)</b></p> <p>Local collector road within suburb, characterised by small scale (in keeping with the existing character of surrounding residential developments) local economic activities and social amenities</p>	<ul style="list-style-type: none"> <li>• Low-intensity mixed land uses with a focus on community services and economic opportunities</li> <li>• Suburban Densification for residential developments</li> <li>• Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>• Urban design guidelines important to guide the development along the street.</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (60km/h and less)</li> <li>• Mixed land uses along service roads</li> <li>• Must be provision for pavements</li> <li>• Parking on site</li> <li>• These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>• Park between Glyn and Hilda;</li> <li>• Arcadia between Festival and Grosvenor;</li> <li>• Grosvenor, Hilda and Festival, between Stanza Bopape and Burnett;</li> <li>• Bronkhorst east of Florence Ribeiro;</li> <li>• Veale between Muckleneuk and Lange;</li> <li>• Dey and Tram between Middel and Lange;</li> <li>• Robert Sobukwe;</li> <li>• Ketjen between Vom Hagen and WF Nkomo;</li> <li>• Rebecca south of Vom Hagen;</li> <li>• Court between WF Nkomo Street and Luttig;</li> <li>• Luttig between Court and Rebecca;</li> <li>• Marivate;</li> <li>• Mammogale and Malebye between Marivate and the Sausville Arena;</li> <li>• Moot between E'skia Mphahlele and Christian;</li> <li>• Skilpad in Monument Park;</li> <li>• 12<sup>th</sup> Street between Justice Mahomed Street and Brooklyn Road.</li> <li>• The Village / Rodericks south of Lynnwood;</li> <li>• 13<sup>th</sup> Street between Justice Mahomed Street and Thomas Edison Street.</li> <li>• Thomas Edison Street between Mackenzie Street and Justice Mahomed Street.</li> <li>• 24<sup>th</sup> Street between Justice Mahomed Street and Atterbury Road.</li> <li>• 25<sup>th</sup> Street between Justice Mahomed Street and Atterbury Road.</li> <li>• Hazelwood Road between Brooklyn and 26<sup>th</sup> Street (Provided that a line of no access will be applicable from Firwood Street between</li> </ul>

Functional Road Classification	Land Use	Function and Design	Roads and Streets
			<p>18<sup>th</sup> Street and Sunrise Street). Dely Road between Hazelwood Road and Matroosberg Road.</p> <ul style="list-style-type: none"> <li>• The Hillside Street between Klarinet Street intersection and Atterbury Road. Klarinet Street.</li> <li>• 26<sup>th</sup> Street between Justice Mahomed Street and Hazelwood Road.</li> <li>• Selati Street from Hazelwood Road to Garsfontein Road.</li> <li>• Brooks Street from Brooklyn Road up to Ox Road.</li> <li>• Ox Road.</li> <li>• Brookside Road between Brooklyn Road and Brooks Street.</li> <li>• First Street.</li> </ul>
<b>Residential collector</b>  <b>(Class IV a and b)</b> Local collector road within suburb, characterised by small scale social amenities	<ul style="list-style-type: none"> <li>• Low-intensity community services and as per Council consent</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (50km/h and less)</li> <li>• Must be provision for pavements</li> <li>• Parking on site These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>• As per map</li> </ul>
<b>Residential collector</b>  <b>(Class V)</b> Local road within suburb	<ul style="list-style-type: none"> <li>• Residential Street</li> <li>• Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (50km/h and less)</li> <li>• Parking on site</li> <li>• Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>• As per map</li> </ul>

## 4.11 DEVELOPMENT GUIDELINES

### LAND USES

The desired activities along the activity corridors, streets and nodes is illustrated by the following notation and definition and it must be used as a guideline and be read in conjunction with the Nodes and Corridor Map at the end of this section.

### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)



Transport-orientated development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (i.e. a train station, metro station, BRT station, bus terminus or taxi rank), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs are generally located within a radius of 500 m to 900 m from a transit stop, as this is considered to be a convenient distance for pedestrians.

### NODE



A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport facilities such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

### EMERGING NODES



Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realization of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

### RETAIL



Areas of concentration of mixed land uses with the focus on retail

### MIXED USES



Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment / institutional etc. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. Mixed uses may refer to retail at street level, institutional on the floor above and residential on the upper floors, or only one use per erf. Principles regarding retail, commercial and industrial uses/rights are still applicable as indicated in this document. Mixed uses in an industrial area may include industry, commercial and retail uses.

### OFFICE USES



These areas may accommodate land uses such as offices, retail industries, small places of refreshment, fitness centres, hairdressers, nail bars, medical

consulting rooms, medical workshops such as a dental technician, prosthetist, orthotist, pathologists, optometrist technician and other businesses such as a beauty salon, pet salon, beauty/health spa, funeral undertaker, place of instruction and uses subservient to the main use. Land uses will be considered on merit, shall be compatible to the surrounding area and shall focus on serving the local community.

## INDUSTRIAL USES



Light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development is to be determined on a local level.

## GENERAL PRINCIPLES IN NODES, CORRIDORS AND MIXED USES AREAS

One of the main concerns for non-residential development and high density development within residential areas is the compatibility and interaction of land use changes to the abutting residential uses. The existing characteristics of an area and street plays an important role in the determination of land uses that is considered appropriate and are compatible with the residential component. The permitted land uses shall only be accommodated along the street up to the mid-block line of blocks running parallel to a street or adjacent service lane.

The following general principles are applicable:

- Encourage development characteristics that spread economic impact (SPLUMA, Objective promote economic and social inclusion).
- A “walkable” environment- place commercial, housing, jobs, parks and civic uses within walking distance of the community and transit stops (National Development Plan, GSDF, Principle)
- Encourage infill and redevelopment along activity streets corridors within existing neighbourhoods.
- A mix of residential, retail, commercial and community uses needed along activity corridors and streets. (SPLUMA, Principle 7(a) Spatial sustainability).
- Activity streets must be frontage streets, with emphasis on public interface.
- Locate jobs, retail and commercial near residences to reduce car dependence. (National Development Plan, GSDF, Principle)

- Encourage active interfaces between buildings and streets.
- Larger uses should locate at the edge of the circle allowing a fine grain mix of use at the centre
- Residential and non-residential uses combined within the same or adjacent blocks.
- Encourage vertical mixing of uses.



Source: City of Tshwane; West Capital Urban Design Framework 2014

The following criteria shall determine if a particular erf is suitable to accommodate a permitted land use change:

- Acceptable safe access possible
- Adequate on-site parking available
- Adequate space available for landscaping purposes
- Acceptable impact on residential component
- Site characteristics
- Availability of services

The following Development Guidelines shall be used:

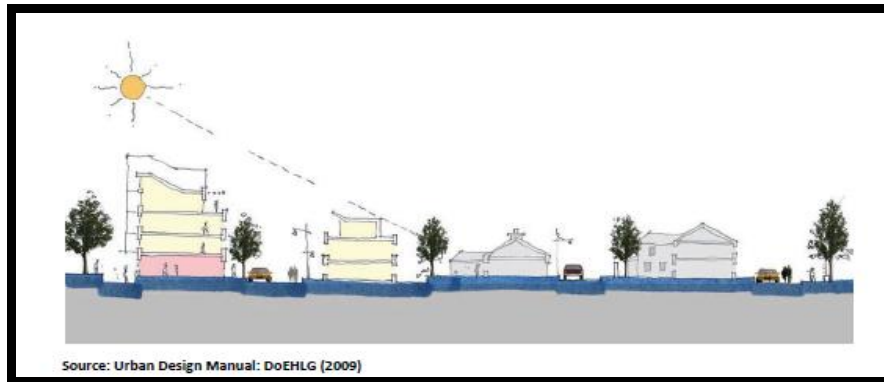
### FAR

- Shall be determined by erf size, parking to be provided on site and the influence of privacy with regard to the surrounding residential properties.



## HEIGHT

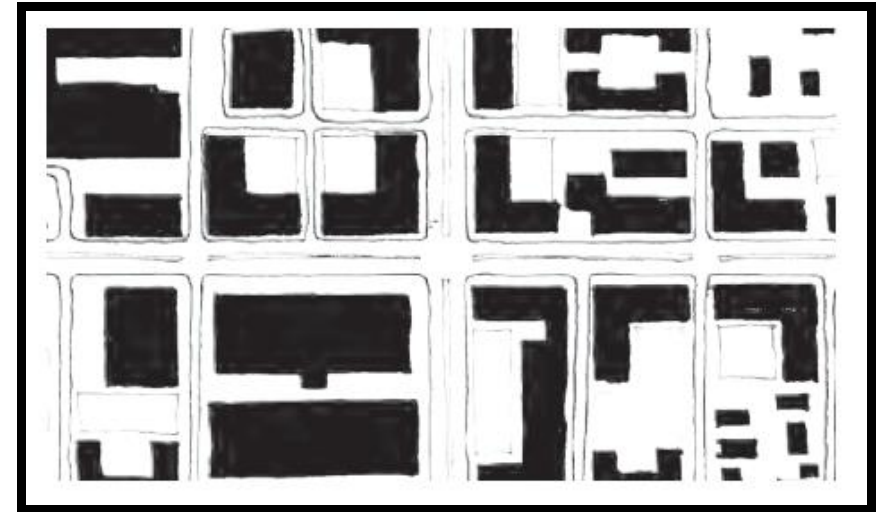
- 2 storeys or higher, depending on the locality and surrounding land uses. Clause 26(2) (b) of the Tshwane Town-Planning Scheme, 2008 (Revised 2014), shall be excluded.
- Relate building height to street width and intended character. Urban centres are characterised by a strong sense of enclosure with street spaces that are generally lined by buildings set along the front property boundary.
- Solar access to adjacent structures, situated to the south of a property to be developed, shall be protected through as far as possible from the adjacent structure.



Source: City of Tshwane: Centurion CBD Framework, 2013

- To ensure no overlooking, the following is applicable:
  - No balconies shall be established on the side of the building abutting a residential property.
  - Windows shall either be located at such height or distance from the boundary of a residential property, that they do not enable overlooking.

## BUILDING PLACEMENT



- Building position is important in the development of the complete and liveable street concept.
- Buildings must be placed as close as possible to the street boundary.
- Building should be staggered along street boundaries in order to break long street frontages.
- Orientate buildings to sidewalks
- Place buildings at the sidewalk (perimeter blocks)
- Street and building configuration should be designed to create vistas, or to terminate views with a landmark feature, building, or public space.
- Buildings at intersections within the corridor and activity street should provide for landmark features.

## BUILDING LINES

- Build to lines or minimum 2 meter building lines on street boundaries.
- Buildings must be placed as close as possible to the erf boundary adjoining streets.
- Adequate side building lines should be imposed to protect the neighbouring residential component.



- The area within the building line should be used mainly for parking purposes and landscaping. Minimum 16% of the area should be covered with soft surfaces to allow permeability of storm-water.

#### PARKING

- All parking shall be accommodated on the erf
- No off-street parking shall be allowed.
- Off street only in TOD.
- Carports shall be located in such a manner that it is not visible from the street
- Parking relaxations will be applicable in TOD and Corridors.
- Parking ratios per area and per application.
- Developers should determine their own parking ratio in certain areas.
- Parking ratios will depend on parking available.
- Discouragement of the use of private car must be reflected in the parking ratio's
- Reduced private parking
- Shared parking can be allowed regardless of whether the zoning ordinance requires any off-street parking, or whether public parking is available
- Parking should be provided sub-surface as far possible.

#### PHYSICAL BARRIERS

- Walls abutting neighbouring residential properties shall be maintenance free on the side of the adjacent property and constructed in brickwork. The wall shall at least be 2,1m in height to offer more protection to the abutting residential activity. No prefabricated concrete walls are allowed
- A well designed and articulated boundary wall of brick should be constructed on the other boundaries of the site. No prefabricated concrete walls are allowed. The boundary wall should be minimum of 2

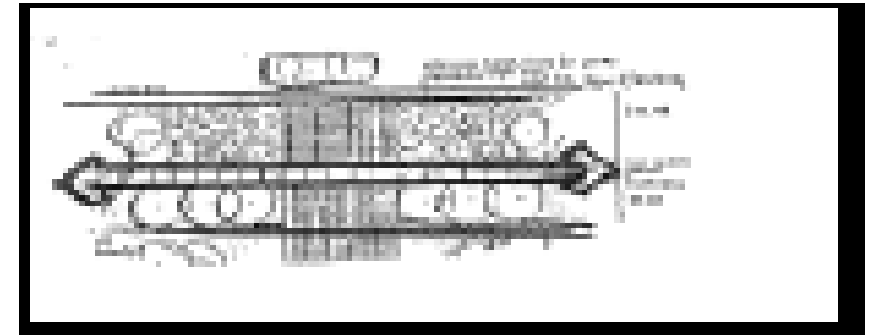
meters high and a maximum of 3,0 meters high and should be maintenance free on the side of the adjacent property;

- Physical barriers along the street boundaries shall be semi-transparent to enhance landscaping, architecture and aesthetics. Set back upper levels of tall buildings to help create a pedestrian scale at street level and to mitigate unwanted wind effects.

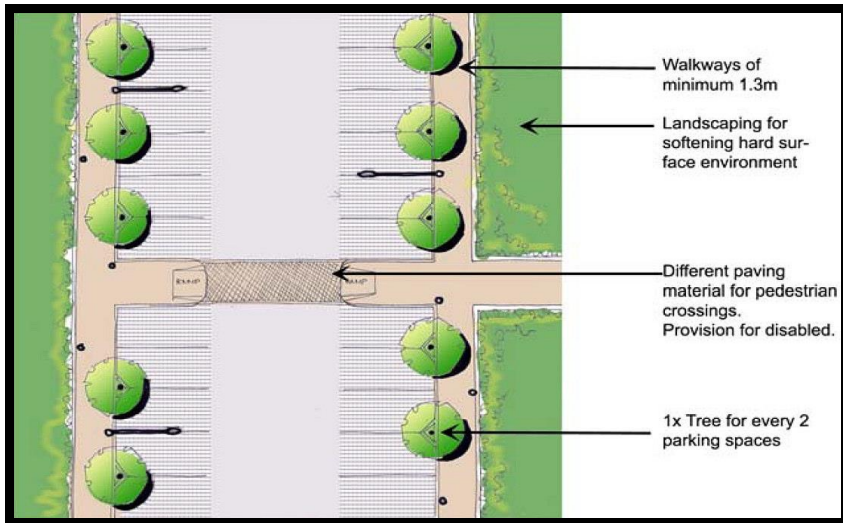


#### LANDSCAPING

- Indigenous landscaping shall be incorporated.
- The road reserve between the erf boundaries and the street shall be landscaped in accordance with the landscape development plan. The landscaping should include design measures to prevent on-street parking and include a walkway (at least 2 m wide) to ensure pedestrian safety.



- One tree shall be provided for every two parking spaces.
- Soft landscaping shall form part of parking areas.



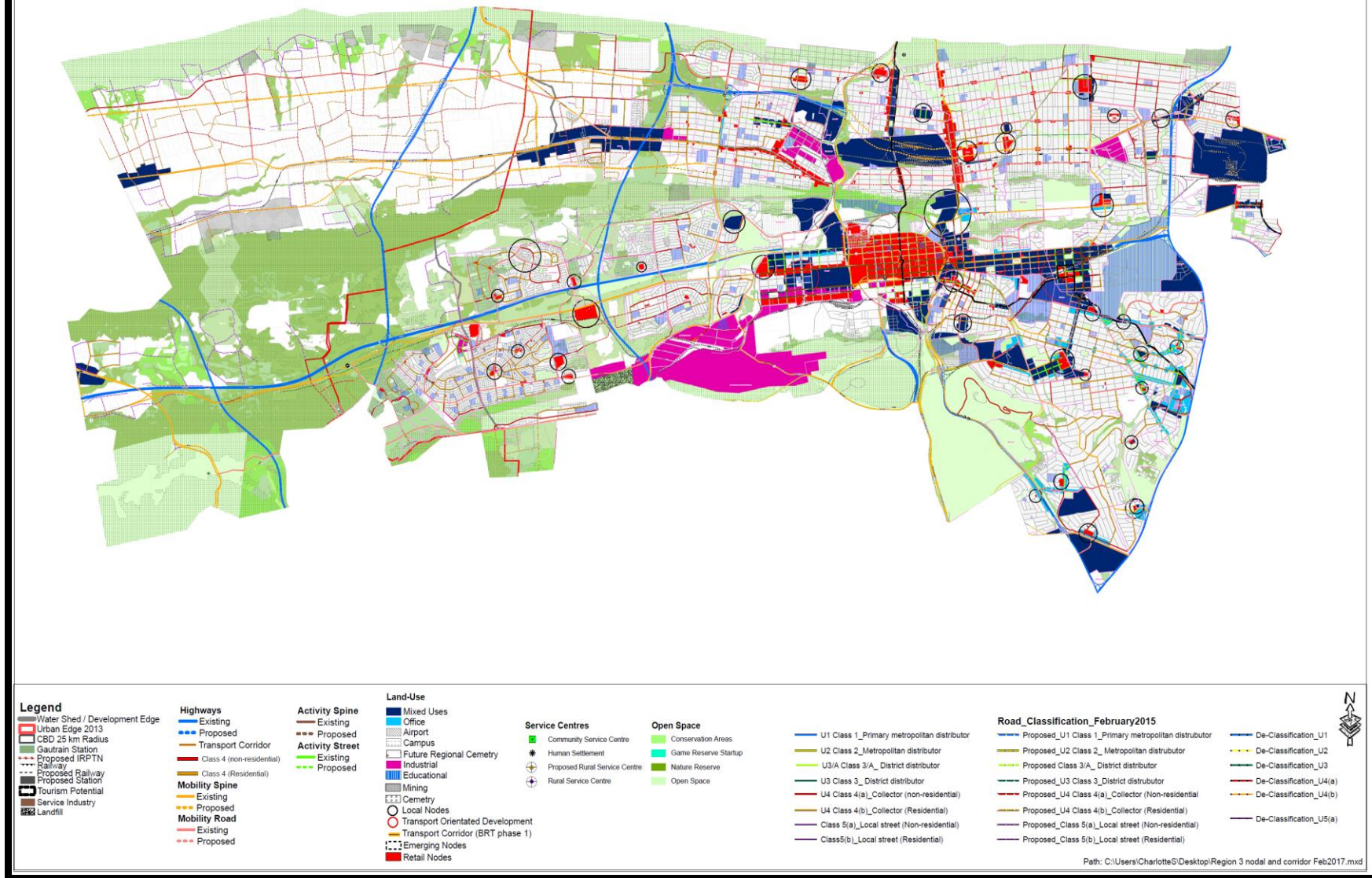
#### ADVERTISING

- Advertising must be as per Municipal policy and guidelines.

#### HEALTH MEASUREMENTS

- Air-conditioning units or compressors shall not be mounted to the exterior walls of buildings without the prior consent of the Municipality.
- Any requirements for air pollution-, noise abatement- or health measures set by Municipality shall be complied with to the satisfaction of the Municipality without any costs to the Municipality.
- All refuse areas and service yards shall be screened off with a solid wall and /or landscaping. Refuse areas shall be placed as far as possible from any residential property.

Nodes and Corridors Map - Region 3



## 4.12 RESIDENTIAL

### Current City Form of Tshwane

- Apartheid left South Africa a fragmented spatial framework;
- Urban sprawl and dysfunctional urban form;
- Low densities mean that public transport cannot benefit from economies of scale.

### Solutions for Tshwane

- Reverse the spatial patterns of apartheid;
- Plan for compact cities and transport corridors;
- Compact cities – more infill and multi-story developments, mix of land uses;
- Density must be public transport orientated - focus on commuter rail and BRT;
- Integrate land-use planning and transport planning;
- Reduce the need to travel;
- Public transport must be prioritised over private transport;
- Embrace BRT's, monorails, NMT, pedestrians;
- Disincentives private car usage – reduce the number of vehicles on the road.

Residential development within Region 3 should be guided by the principles contained in the Tshwane Compaction and Density Strategy. The core principles of this strategy are:

- Density must contribute to the overall structure and functionality of the metropolitan area in that it takes place in a balanced, focussed, structured and meaningful way;
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration;
- Specific areas of opportunity or in need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified);
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment;

- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future;
- Areas targeted for densification should be well served by social facilities such as education, open space, recreation etc. or should have the potential to be well served by social facilities;
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas;
- Retain, enhance and encourage cultural assets;
- Densities for old age homes and retirement centres, hostels and student accommodation will be evaluated on their own merits where location and accessibility to social infrastructure will play an important role.

Another important underlying principle of the Tshwane Compaction and Density Strategy is that higher density developments should not merely be dictated by density, but that design and typology considerations should be of critical importance, as these are the factors that in reality make either a positive or negative contribution to the overall quality of the environment in which they are situated. Density and compaction is not an end in itself, but a means to achieve an overall efficient, integrated and sustainable metropolitan area. Density proposals within Region 3 should therefore not be done for the sake of densification, but to achieve a range of other goals, such as :

- increasing accessibility to public transport facilities;
- creating the necessary population thresholds for economic growth and viable business development (especially small and medium sized enterprises) in specific areas;
- minimising distances between home and work (i.e. integration of higher densities with employment opportunities);
- containing outward expansion of the urban footprint.

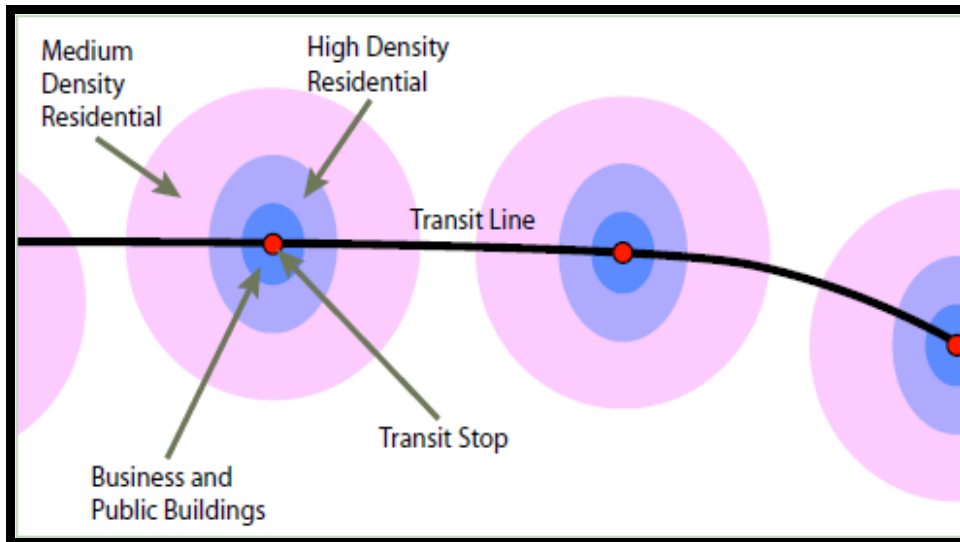
The benefits of densification and intensification:

- **Concentrations of people** in areas of high urban activity
- Access of people to opportunity increase
- Population threshold increases which means that a viable market for business and transport is established
- Density is significant for the economic performance of a city



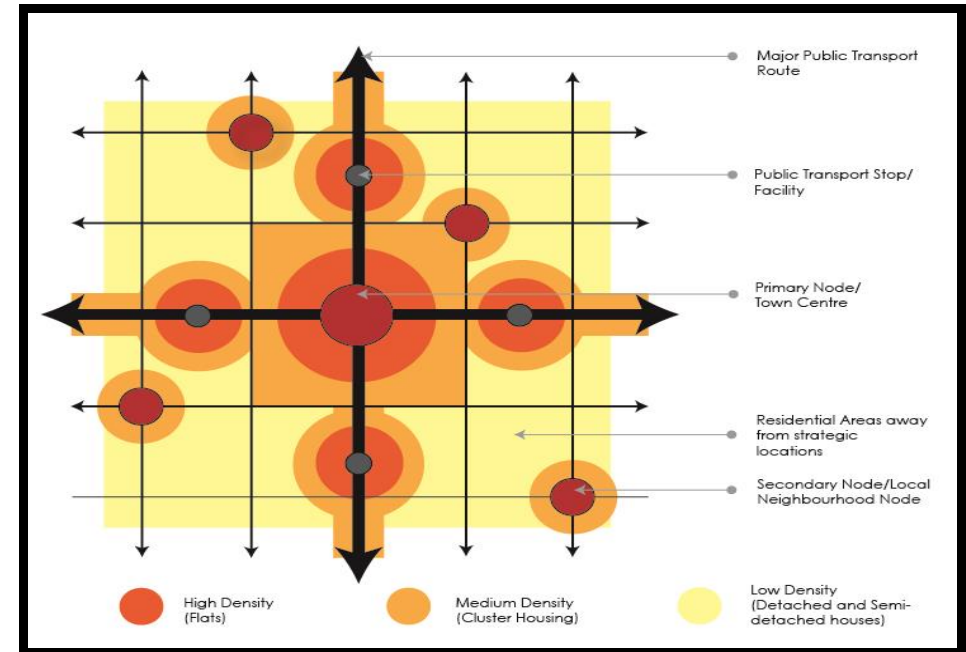
### ○ Urban efficiency

- Travel distances and time
- Cost of engineering infrastructure
- Public transport becomes more viable
- High density assures the maximisation of public investments including infrastructure, services and transportation and allows efficient utilisation of land



The strategy proposes four key density zones, namely:

- Concentration Zones
- Linear Zones
- Suburban Densification Zones
- Low Density Zones



### Criteria for densification

Applications for densification shall be evaluated against the following criteria: shape of property, height, whether sufficient parking is available, privacy of adjoining owners, consolidation of stands and access, northern orientation, services available, and unit typology, size of the property, open space.

Densification throughout the city will still be in accordance with availability of services and geological conditions such as dolomite restrictions.

Refer to the density map for a schematic illustration of densifications; it is important to note that walking distances to public transport will be applied in the evaluation of density applications.

All densification applications should adhere to the above mentioned criteria and development guidelines as indicated in Paragraph 4.11.

#### 4.12.1 CONCENTRATION ZONES



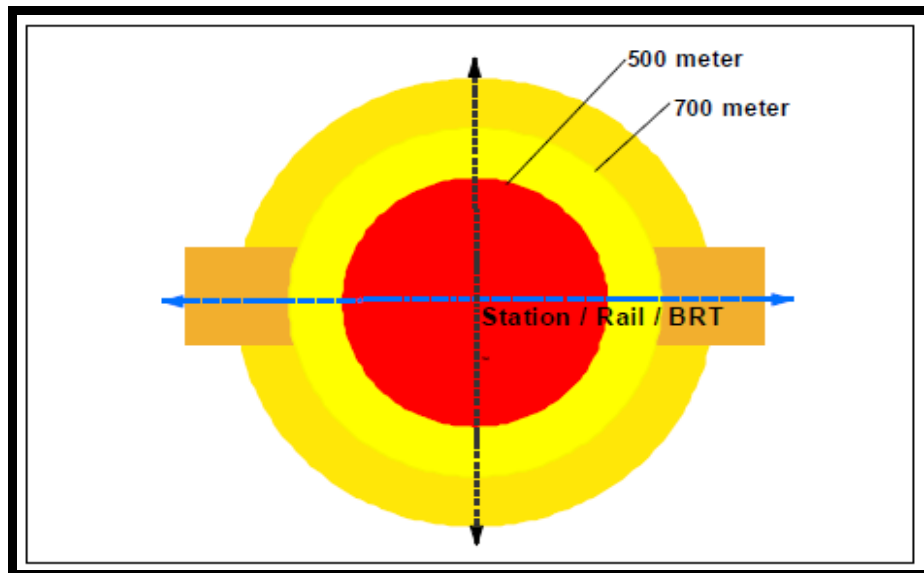
(Less than 500 m walking distance: density in excess of 200 units/ha)

The **Concentration Zones** are the primary focus areas for high density residential developments and are centred on nodes of metropolitan importance such as Metropolitan Nodes and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within a 700 / 900 m walking radius of a railway station or a major public transport node.



(500 m up to 700 / 900 m walking distance: density 120 units/ha)



The areas around the existing Gautrain and PRASA railway stations and around the proposed BRT / ITPN stations have been earmarked for higher density transit promotion zones. Densification should take place within a 900 m walking radius of a BRT / IPTN station. Densities in excess of 200 units/ha in nodes and around rail stations will be applicable for the first 500 m walking distance and up to 120 units/ha for the area between 500 m and 700 / 900 m. In terms of height a human scale must be achieved with buildings in the order of 6 to 8 stories parallel to the trunk route and tapering down from the trunk route into the residential area. The walking distances will be determined by the distance between stations. The closer the stations are to one another the shorter the walking distances will be.



Source: City of Tshwane, City Planning and Development Department



Line 1 A: Paul Kruger Trunk

Refer to Chapter 2 regarding the first phase of the BRT / ITPN trunk routes. The first phase Hatfield to CBD route (Line 2 A) as well as the second phase extension to Menlyn will be the focus of residential densification within Region 3.







developments. It is envisaged that these nodes will develop a whole range of activities on an intense scale.

In the Hatfield Metropolitan Node high density residential development in high rise apartment buildings are proposed around the Hatfield Gautrain Station and BRT stations. The detailed proposals should preferably include provision of hard open space and linkages to the existing open space hierarchy as illustrated on the development framework (see detail regarding densification proposals in Part 5).

High Density Zones in the west of the region are focussed on the Urban Cores where public transport infrastructure can be supported. In Pretoria (West) those parts of the existing residential precincts located north and south of WF Nkomo Street up to Luttig Street and Servaas Street are well served by public transport and can at the same time complement the various retail outlets along WF Nkomo Street and the mixed uses in Vom Hagen and Soutter Streets.

Around Schutte Street Station even further densification can be promoted. Typical housing typologies that can be supported will be medium rise apartment buildings mixed with stacked simplexes up to three storeys.

Areas of high intensity development is proposed at the Saulsville Station and around the other stations along the railway line further east, as well as in the area around the Attlyn Shopping Centre south of Kalafong Hospital and along Maunde Street in Atteridgeville. In Lotus Gardens a high density zone is envisaged around the former proposed town centre.

New Developments within Concentration Zones should preferably not be at densities of below 120 units per hectare.

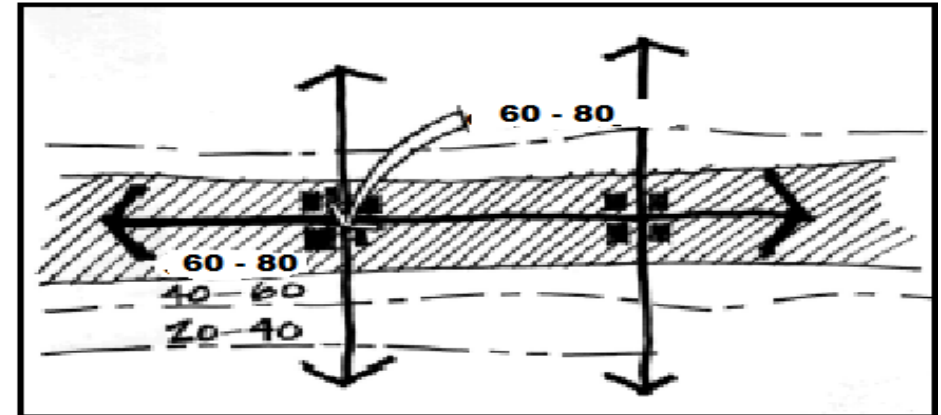
#### 4.12.2 LINEAR ZONES (CORRIDORS AND SPINES)



**(Up to more or less 200 m walking distance from public transport: density up to 80 units/ha)**

For the purpose of densification, Linear Zones refer specifically to high intensity activity areas that are located along major routes. The routes usually carry high volumes of traffic to areas such as Concentration Zones and Transit Promotion Zones and thus encourage the feasibility of public transport on

strategic routes. The Linear Zones also connect the nodal areas within the city with one another.



The identification of these Linear Zones should follow a focussed, selective and phased approach, where only the most important routes are identified in the short term. This is necessary in order to achieve a high level of concentration along each of these routes rather than dispersing development along too many routes, and then the critical mass for public transport viability is never achieved. In terms of the densification strategy, Linear Zones refer specifically to high activity areas that are located along major routes. The main aim of the routes should be to encourage public transport.

In terms of the densification strategy, Linear Zones refer specifically to high activity areas that are located along major routes. The main aim of the routes should be to encourage public transport. Parts of major routes such as, Justice Mahomed Street, Brooklyn Road, Jan Shoba Street, Duxbury Road, Middel Street, George Storrar Drive, Dely Road, Garstfontein Road, Stanza Bopape Street, Park Street, Codonia Avenue, Baviaanspoort Road and Florence Ribeiro Avenue are regarded as linear densification zones. Typical housing typologies that will be appropriate along these routes will be medium rise apartment buildings, walk-ups and duplex residential developments. Densification of up to of 80 units per hectare in accordance with the Compaction and Densification Strategy should be promoted on merit along these routes, taking into account the existing urban fabric and local character of the area, design, unit sizes and erf sizes, as well as access.

Within the western part of the region, WF Nkomo Street and Maunde Street are regarded as linear densification zones.

In future the westward extension of Staatsartillery Road will be a very important east-west arterial link along which higher densities should be promoted. Different housing typologies should be supported with the emphasis on 3 storeys and higher.

To promote public transport in the western part of the region, densification will be restricted to these three routes on the short to medium term. Densities of up to 80 units per hectare should be promoted along these routes.

The proposed K16 should be seen as a linear densification zone. Typical housing typologies that will be appropriate along these routes will be medium to low-rise apartment buildings, walk-ups and duplex residential developments.

Steve Biko Road / Johan Heyns Drive and Van der Hoff Road are Linear Zones that should accommodate housing typologies ranging from medium to low-rise apartment buildings, walk-ups and duplex residential developments.

#### 4.12.3 SUBURBAN DENSIFICATION ZONES



**(density 10 – 25 units/ha)**

Suburban Densification Zones are those existing suburban areas where there is potential for moderate densification because of the area's strategic location within the city (within a 25 km radius of the CBD). This zone makes for good application in areas that are close to places of employment, major retail centres and prominent transport routes, but where it is still desirable and warranted to maintain a suburban character. These areas are indicated in yellow on the Densification Map. The density in these areas will be restricted to a maximum 25 dwelling units per hectare. The exceptions will be the nodal / core areas (as indicated on the densification map) within the suburban areas where densities of up to 200 units / dwelling-units per hectare can be supported depending on available public transport and social amenities. Activity streets in suburban areas as indicated in the RSDF are also earmarked for densification up to 80 units per hectare.

Whereas the Concentration and Linear Zones propose a particular urban environment, both the Suburban Densification Zones and the Low Density Zones are distinctly suburban zones.

Within Suburban Densification Zones the core principles of densification are:

- Densification must contribute to the provision of lifestyle choices within the specific area. As an example provision must be made to sustain all the lifestyle phases from young working people and students, families with young children, and elderly people;
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration;
- Specific areas of opportunity or in need of restructuring should be identified (areas that should not be densified for specific reasons should also be identified);
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment;
- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future. Pedestrianisation must be included into the densification process;
- Areas targeted for densification should be well served by social facilities such as education, place of public worship open space, recreation etc. or should have the potential to be well served by social facilities. Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase;
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas;
- Encourage community and stakeholder collaboration;
- Retain, enhance and encourage cultural assets.

The various housing and densification typologies must be employed in a structured manner within this Zone, with cluster housing and apartments located adjacent to strategic points within the neighbourhood such as local nodes, public transport facilities on a major public transport route, education facilities and parks. These developments shall be subject to urban design principles and site development plans. Sustainable neighbourhood planning seeks to achieve long-term socially, environmentally and economically viable

communities. The main objective is to create pleasant, safe and sustainable residential neighbourhoods with a mix of residential typologies, community and social facilities, recreation areas such as parks, sports fields and playgrounds, access to public transport for those who need it, and local economic opportunities.

*“A successful and sustainable neighbourhood is a product of the distances people have to walk to access daily facilities, the presence of a sufficient range of such facilities to support their needs, and places and spaces where a variety of activities can take place.”<sup>1</sup>*

In essence, within this zone the urban form remains the same as it currently is, only with an increase in general density and a change in typology and density around strategic points within these areas. Greenfields development (farm portions and small holdings) will be considered on merit and the general principles of densification will apply.

#### 4.12.4 LOW DENSITY ZONES



**(less than 20 units/ha)**

Low Density Zones are so called because they are the areas in the city where lower densities are actually more desirable, either because of location or *bona fide* special circumstances. The majority of these zones are the peripheral areas that are removed from opportunities such as economic and employment nodes and mass transportation opportunities and is characterised by long travelling distances to areas of employment. In these areas, higher densities serve no purpose or could actually be detrimental to the functionality of the city, and it is preferable not to encourage population concentrations in these areas.

The Low Density Zone however also includes areas that are more centrally placed, but which have special characteristics that need to be preserved, and hence a low density is considered justifiable. It includes areas along ridges where lower densities are more conducive to a built form that is sensitive to the ridge quality from a visual point of view, including issues such as skyline, further spacing of buildings etc. These low density areas will also serve to

provide visual relief in between adjoining higher density areas. Ideally, in a Low Density Zone<sup>2</sup> the density should not exceed 10 dwelling-units per hectare. Encouraging low densities in these areas are also important to ensure that the higher densities are directed and actually take place where they are desirable and required.

The following areas within Region 3 have been identified as Low Density Zones, i.e. erven were a density of less than 10 units per hectare shall prevail:

- Erven directly adjacent to undeveloped ridge areas, as indicated on the densification map based on the C-Plan.
- In the Magaliesberg Natural Protected Area, one dwelling-unit per 1000 m<sup>2</sup>;
- North of Breyer Avenue in Waverley;
- Other ridges as indicated on the density map.

In terms of the Compaction and Densification Strategy, Lukasrand, Muckleneuk and Groenkloof are more sensitive ridge areas and are earmarked as Low Density Zones. .

<sup>1</sup> Source: Homes and Communities Agency: Urban Design Compendium 1

#### 4.12.5 RURAL DIVISIONS



Divisions of farm portions and agricultural holdings will be according to the densification map. The basic principle applicable will be that division of up to 1 ha and more will be allowed in areas with Council approved piped water. Divisions of 5 ha and more will be supported in areas without piped water except in cases of high agricultural potential and environmentally sensitive areas. Proposed divisions must take flood lines and water courses into account when application is made.

Notation	Size	Services
	5000 m <sup>2</sup> (No second dwelling unit allowed)	Piped water
	1 ha	Piped water
	2 ha	Piped water
	4ha – 5ha	Piped or Borehole Water
	8.5 ha	Piped or Borehole Water
	10 ha	Piped or Borehole Water
	+20 ha	Piped or Borehole Water

#### 4.13 SUSTAINABLE HUMAN SETTLEMENTS

Sustainable Human Settlements should be provided in accordance with the guidelines as set out in the above-mentioned Tshwane Compaction and Densification Strategy. Such settlements should be developed within Concentration Zones and along Linear Zones with the supporting densities as prescribed. Further human settlements should be provided in close proximity to social amenities and public transport.

##### 4.13.1 INFORMAL SETTLEMENT UPGRADES AND RELOCATION

In Region 3 about 64 000 informal units exist and need basic services.

- Existing informal settlements that fall outside of the urban edge should not be provided with in-situ upgrading. They should rather be relocated.
- Informal settlements should only be relocated to areas that are geotechnically sound and do not fall within a flood line area.
- Compaction, infill and densification should serve as key guiding principles for both in-situ upgrading and relocations.
- Informal settlement management plans should incorporate landscape planning.

##### 4.13.2 SOCIAL HOUSING



Social Housing proposal in the inner city

In the provision of social housing the following aims should be promoted:

- Housing should provide a range of typologies within strategic nodes in order to address both social and economic restructuring;
- Housing typologies should allow for diversity and significantly higher density than the current densities;
- Densification in order to address the green economy of spatial planning;
- Brownfields development is preferable to greenfields development in order to achieve infill development;
- Compaction and rejuvenation of decaying areas (where applicable);
- Housing location should be targeted towards significant places of work opportunity, i.e. metropolitan nodes and primarily urban cores;
- Housing developments should include the provision of or be located next to safe and efficient linkages with space for pedestrians and cyclists;
- Housing location should be well planned to ensure connectivity via public transport to other places of significance in the metropolitan area;
- Urban design, landscaping and streetscaping should be incorporated in housing schemes;
- Social housing should be an effective component of sustainable human settlements, i.e. providing or being located close to social amenities and facilities;
- Mixed-use residential buildings should be implemented where possible, allowing for an optimal use of all available resources, supporting transport-orientated development and providing a sustainable living environment.
- Ensure that residential development (both affordable and otherwise) creates sustainable neighbourhoods rather than just housing project areas;
- Focus on the provision of affordable housing in accessible, spatially and functionally integrated locations rather than creating free-standing peripheral islands of housing;
- Have a coherent and targeted approach to the upgrading, formalisation or relocation of informal settlements.

Movement and Connectivity – see Paragraph 2.4 for more information on this and transport orientated development. Transport orientated development supports the concept of the “20 Minute Neighbourhood” where all urban facilities and services can be reached within a 20 minute travelling period.





## 4.14 MOVEMENT SYSTEM

During the development of the RSDF's the spatial location of proposed land-uses is considered. It is essential that the transportation network and services can support the land-use proposals. Therefore a strategic assessment of the transportation needs was undertaken to identify possible transportation system interventions and refinements. The proposals are intended to serve as a point of departure for further more detailed feasibility studies.

### 4.14.1 Highway Planning Projects of a Strategic Nature

There are currently several important strategic road links that are needed and justified. Some of these are planned to be implemented using public and private funding in partnerships. In Region 3 the following strategic projects are indicated:

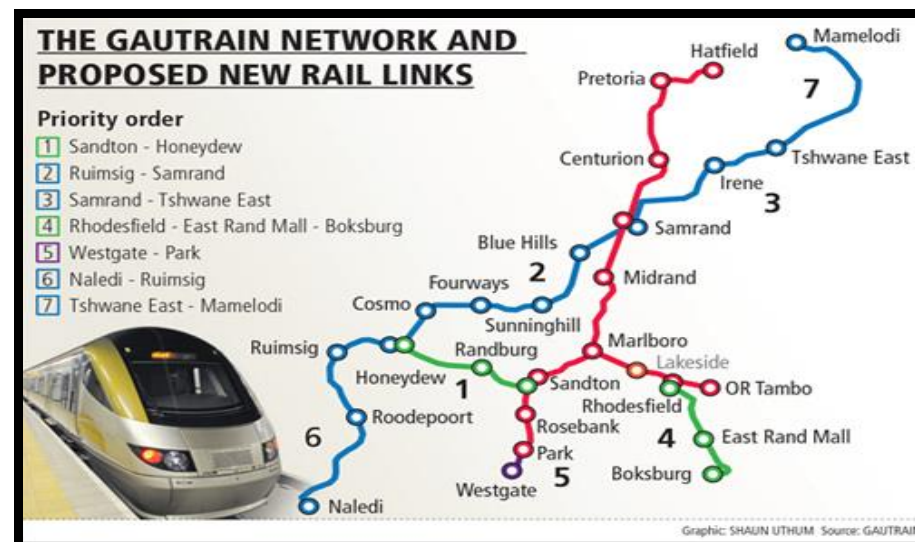
- The highest priority for implementation in Region 3 is the construction of the PWV-9 bypass west of the city along the so-called MCDC corridor. The PWV-9 forms the backbone of the MCDC corridor. It is considered as an important public transport corridor linking low income areas in the north with the southern sections of Tshwane and the rest of Gauteng. The development of the Zone of Choice to its full potential will also rely heavily on the construction of the PWV-9 in the west of the City. The PWV-9 road would complete the "ring road" freeway around Tshwane and improve the accessibility to the regions north of Tshwane from Johannesburg. It would also open up the western areas in the city for further development and opportunities.
- The extension of Nelson Mandela Drive (M3) from Edmond Street to Soutpansberg Road.
- A priority road project in terms of the Integrated Transport Plan (ITP) is the Fountains Phase 3 (grade separation).
- Doubling Stanza Bopape Street across the railway line in Colbyn Valley (also listed in the ITP).
- The Hatfield one-way system (listed in the ITP).

- The proposed K16 through the Moot area is a fundamental east-west link which will alleviate congestion on lower order roads, make strategic land parcels like the Transnet land in Capital Park more accessible and form a catalyst for development.

### 4.14.2 Rail

#### Gautrain

Gautrain serves Region 3 via the Pretoria Station and the Hatfield Station, which integrates with the existing Metro rail system. Metrorail serves the area well. The integration of these systems is important to ensure an integrated public transport system. The re-evaluation and restructuring of the passenger rail system in Tshwane is a priority. This relates closely to the introduction of the Gautrain and the integration thereof within the CoT public transport network. The Gautrain has provincial significance and could specifically contribute to the functionality of the Region if the line is extended to Menlyn and Mamelodi. Further studies are needed in this regard.





### Passenger Rail Agency of South Africa (PRASA) network planning proposals



PRASA priority corridor in the next 2 years in Gauteng is the Mabopane Johannesburg/Soweto line. The proposal includes upgrading of the capacity in terms of rolling stock and lines. New stations are also planned within this upgrading phase.

The focus of future residential development in the western part of the region is north of the Saulsville railway line and the former N4, therefore the accessibility of the stations in this area needs to be improved from the north. Three stations currently serve the area, namely Saulsville, Atteridgeville and Kalafong. Several more stations serve the Pretoria West area up to Pretoria Station in the CBD.

#### 4.14.3 Road network

- The road network is well-developed in the region.
- The extension of Nelson Mandela Drive to the Steve Biko Academic Hospital area is supported.
- The accessibility of the stations in the western most parts from the north by road must be improved.

- The upgrading of WF Nkomo Street between the CBD and Atteridgeville is supported.
- The construction of the PWV9 will improve north-south mobility and provide opportunities in the western side of the Region. It is thus supported and considered a priority in this region.
- The extension of Staatsartillerie Road from Strachan Road to Anthesis Street in Lotus Gardens is another priority in the west.
- In the very long term the PWV-7, a north-south freeway to the west of Atteridgeville, is planned. This planning is supported.
- There are a number of north-south routes in the region, including E'skia Mphahlele Drive, Steve Biko Road, Paul Kruger Street and Bremer Street. The mobility function along these routes needs to be protected.
- The introduction of a link between Hotel Street and South Street across the University of Pretoria land in Hatfield must be considered. The RSDF proposes significant densification of the CSIR grounds. This link could provide for much needed additional linkage across the N1 and could contribute to densification. The accessibility of Hatfield would be greatly enhanced.

#### 4.14.4 Bus Rapid Transit (IRPTN System)

The need for a high-quality, customer-orientated public transport (transit) system was identified that will deliver fast, comfortable and low-cost urban mobility within the City. The City's Integrated Transport Plan (ITP) and the Strategic Public Transport Network (SPTN) approved by Council in January 2007 clearly identified certain corridors that should be further investigated and implemented as mass rapid transport corridors.

##### Vision and Objectives

Tshwane's residents depend upon the efficient provision of public transport services to fulfil their daily mobility needs. The integration of the different rail, bus, minibus, and non-motorised transport options remains a major goal in delivering more convenient and cost-effective services. The proposed Implementation Plan seeks to articulate the vision and steps required to implement a public transport system that integrates all modes into a seamless and high-quality network.

The overall goal of this initiative is to improve the quality of life for the city's residents through the provision of an integrated public transport network that is rapid, safe and secure, convenient, clean, affordable, and socially equitable.



#### Phased Implementation

The development of the full integrated network will take place over a series of phases, in order to match the available resources for planning, financial requirements and construction. In addition to the full implementation of the Priority Rail Network, various corridors are recommended for development of trunk and / or other road services in project Phase 1. See details in Part 2.

Phase 1 of the BRT consists of the corridor from the Klipkruisfontein Node in Soshanguve past the Akasia Node and the Rainbow Junction to Pretoria CBD, with a further extension to Hatfield, Menlyn and Mamelodi.

## 4.15 RURAL AREAS

The newly demarcated COT, resulting from the merger between Metsweding District Municipality and the former City of Tshwane, now includes a significant rural component. These new rural areas, as well as the other existing areas, need to be analysed and planned in order to protect the environmentally sensitive areas, to manage the buffer areas, to create opportunities for sustainable development and to promote sound land use development in the less sensitive areas. The vision for the Tshwane Rural Component has been explained in paragraph 2.5.3.

In Region 3, the rural component comprises of two separate precincts, i.e. the Schurveberg area south of the Witwatersberg, which extends from the western edge of the Atteridgeville and Lotus Gardens townships to the metropolitan boundary and the West Moot area, extending north of the Witwatersberg from the western edge of the urban development in Andeon and Kirkney to the North West provincial boundary. Although these two areas are adjacent to one another, there is no direct road link between the two because of the imposing Witwatersberg which separates them. The plan at the end of this section will be applicable to the rural areas of Region 3.

Ecological and agricultural resources are irreplaceable and should be one of the major structuring elements guiding the development of the city instead of unplanned urban growth taking precedence, and open space becoming merely land that is not desirable for urban development and thus 'left over' space. Similarly, in order to ensure food security in the long term for the municipality and the province, high potential agricultural land (which is a scarce resource), must be protected from development and exploitation.

### 4.15.1 MAJOR RURAL ROADS

Each region has major roads and routes of Metropolitan context traversing the region which ensures movement patterns and the continuation of roads and corridors for the greater Metropolitan area.

The following major roads serve the Rural Component of Region 3:

- Former N4/PWV1 (existing)

- R511 (existing)
- R514/ Van der Hoff Road (existing)
- R104/Elias Motswaledi Street (existing)
- M17/Hornsnek Road (existing)
- K20 (proposed)
- K16 (proposed)
- PWV 6 (proposed)
- PWV 7 (proposed)

### 4.15.2 Urban Edge

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision for essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

As indicated in Part 2 "Metropolitan Context" of this document the Urban Edge cannot be seen as the only management tool to demarcate the Rural Component of Region 3.

### 4.15.3 Development Edge

The Development Edge compliments and corresponds mostly with the Provincial Urban Edge to indicate the extent of the Urban Fabric, but it deviates in some instances and only in some Regions from the Urban Edge where it follows the line indicating the non-availability of services infrastructure in that Region. The resulting areas in between the deviation of the edges can realistically not be developed in the near future and need to remain rural in character until such time that services can be provided.

#### 4.15.4 Future Urban Development Areas



The Future Development areas are identified for development in the near future.

The issue of expansion of Atteridgeville requires urgent attention. It must be expected that Atteridgeville will expand in a westerly direction in the short term due to the high population and urbanisation rates that still occur. An integrated management approach will have to be followed to address further encroachments into environmentally sensitive areas beyond the current western area.

The area located to the north of the former N4 toll road, to the west of Elandspoort, up to and including the Gerotek land, is identified for Future Urban development. The better utilization of land is however also an important factor to consider. Different housing typologies at various densities need to be implemented on the land suitable for housing development, especially to the north of WF Nkomo Street.

The Andeon Agricultural Holdings, as well as portions of the farm Zandfontein 317-JR and the Kirkney townships were originally earmarked for industrial development. However, there has not been a significant demand in the area for further industrial development due to the poor access. It is proposed that these areas be earmarked for future expansion for residential development. The area is easily accessible to the Inner City, the Zone of Choice and the Akasia/Pretoria North CBD. It is proposed that medium density residential development be encouraged here. Typical housing typologies that will be appropriate in this area will be medium to low-rise apartment buildings, walk-ups and duplex residential developments.

It should also be noted that there are many vacant erven in Lady Selbourne and in Lotus Gardens that belong to the Municipality and

which have General Residential or Group Housing land-use rights. The development of these erven should be encouraged through Public Private Partnerships (PPP).

Proposed development considerations for development in Future Urban Development Areas can be summarized as follows:

- The contribution of the proposed development towards the goals of the City Strategy and Metropolitan Spatial Development Framework;
- The availability of bulk engineering services – especially water and sewerage;
- The environmental sensitivity of the area – considerations such as water courses, ridges, etc;
- Proximity of site to public transportation routes/facilities such as stations;
- Proximity to other supporting social facilities, economic opportunities and retail developments;
- Physical features that may define the development, such as railway lines / watersheds / provincial roads / environmental areas;
- Liveable communities will have to be developed by means of social services such as schools, police stations and other amenities;
- Aesthetics and urban design guidelines will have to be provided with a diversity of housing typology which breaks from the tradition of monotonous housing schemes which have dominated the South African landscape for too long;
- The provisions of sustainable economic opportunities within these areas.



#### 4.15.5 Management Zones



The Management Zones are areas not considered suitable for urban development as they are not well located in terms of the larger urban structure and areas of opportunity. They may also be characterised by environmental sensitivities as indicated by the Biodiversity Plan and the Tshwane Open Space Framework, which are important to protect from a metropolitan perspective. Rural development such as low density eco and equestrian estates will be supported depending on services that can be provided.

Within the Management Zones land-uses and densities which do not fit into the denser urban complex, should be permitted. Uses supported in the Management Zones would include lodges, wedding venues, mini storage facilities, places of refreshment and children party venues. The availability of services and the ease of access to major roads will play an important role in the evaluation of non-residential uses as mentioned above. Non-residential uses serving the rural population and surrounding urban areas should be concentrated in Community Service Centres as indicated on the Region 3 Rural Plan. Locations at the intersections of major roads will be supported.

#### 4.15.6 Agricultural High Potential Areas / Biodiversity Zone



Where so indicated, certain land in Tshwane Rural Component has unique agricultural potential in terms of its location, soil quality, being close to irrigation and other amenities or is able to provide high yields or products with specific feeding qualities. These quality areas have importance on

Regional, Metropolitan and even National level and should be preserved and used in terms of their uniqueness only. Food production for the country as a whole should be maintained and improved for future generations.

Productive agricultural land will be protected as far as possible in terms of this framework. Fragmentation of agricultural high potential areas will be restricted to a minimum. Agri-industries will be supported in and in close proximity of high potential agricultural areas.

#### 4.15.7 Sensitive Protected Areas /Biodiversity Zone



Sensitive protected areas are indicated on the Biodiversity Plan, including ridges and streams, natural resources, fauna and flora protected places/areas. These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Protected Areas of Region 3 are located mainly along the Magaliesberg Protected Nature Area along the northern boundary of the region, as well as along the Crocodile River in the extreme south-west. These areas should be managed through environmental codes, to protect the basic resources. The Sensitive Protected Areas include important areas, irreplaceable areas, protected areas, ridges and blue ways in line with the Biodiversity Plan.

Non-agricultural uses will only be promoted if the amenity of the rural area remains intact and the impacts of the development on neighbouring properties are minimal.

#### 4.15.8 Sensitive Ridge Areas



Sensitive protected areas. (Combination of the Biodiversity Plan protected areas, including ridges and streams, natural resources, fauna and flora protected places/areas). These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Protected Areas of Region 3 is located mainly along the Magaliesberg Protected Nature Area along the northern boundary of the region, as well as along the Crocodile River in the extreme south-west. These areas should be managed through environmental codes, to protect the basic resources. The Sensitive Protected Areas include important areas, irreplaceable areas, protected areas, ridges and blue ways in line with the Biodiversity Plan.

#### 4.15.9 Heritage and Cultural Protected Areas

Heritage and

Similar to the protection of monumental structures, places and land within the urban context, there are equally important structures, places and land found in Tshwane's rural areas that need protection. In most cases the best protection can be provided when it is also developed and operated as tourist attractions.

#### 4.15.10 Tourism Potential Places/Areas

Tourism

Of natural and economic importance for Tshwane is the accrue ment and expansion of the already known places of tourism, tourist attractions and activities. Places with tourism potential occur throughout Tshwane's rural areas. Conservation and preservation needs to be maintained and tourism

potential exploited without damaging overall natural and rural character. Different tourism related uses such as picnic areas, lodges, wedding venues and arts and craft related uses including places of refreshment will be supported in these areas. Commercial uses and uses such as storage and light industrial uses should not be supported in these areas.

#### 4.15.11 Conservancies

Conservancy

Proclaimed conservancies have legal standing and management prescriptions. Conservancies strive towards preservation and the protection of their present state and the notion should be honored in the rural context and the evaluation of development proposals.

The Franklin Conservancy, located just to the west of the Gerotek facility, is found in Region 3.

#### 4.15.12 Game and Nature Reserves

Game and  
Nature

The following places with tourist potential are found in Region 3:

- Cheetah Park
- Magaliesberg Nature Area
- Groenkloof Nature Reserve
- Rens Nature Reserve

#### 4.15.13 Mines and Places of Manufacturing

Mines/  
Places of

There are a few and dispersed mines and / or places of manufacturing in Region 3, for instance a number of stone quarries along Kenneth Road on

the farm Boekenhoutkloof. All such land uses need to be managed for their period of existence and specific rehabilitation programs should be investigated and initiated. Protection measures should be implemented for adjacent land and sensitive environments.

#### **4.15.14 Human Settlements**



There are a number of places in the Rural Component of Tshwane where villages and other forms of human settlements occur. Some are tribal in nature with official captaincy while others are just a habitual conference of people living together. Some have legal support while others are just illegal squatters. It remains a sensitive issue how to deal with settlements and in each specific case measurements should apply how to best resolve settlement issues. Settlements to remain should be formalised and provided for in terms of human needs and basic services. A settlement that must move needs planning according to an approved program. Specific measures must be taken to manage adjacent land.

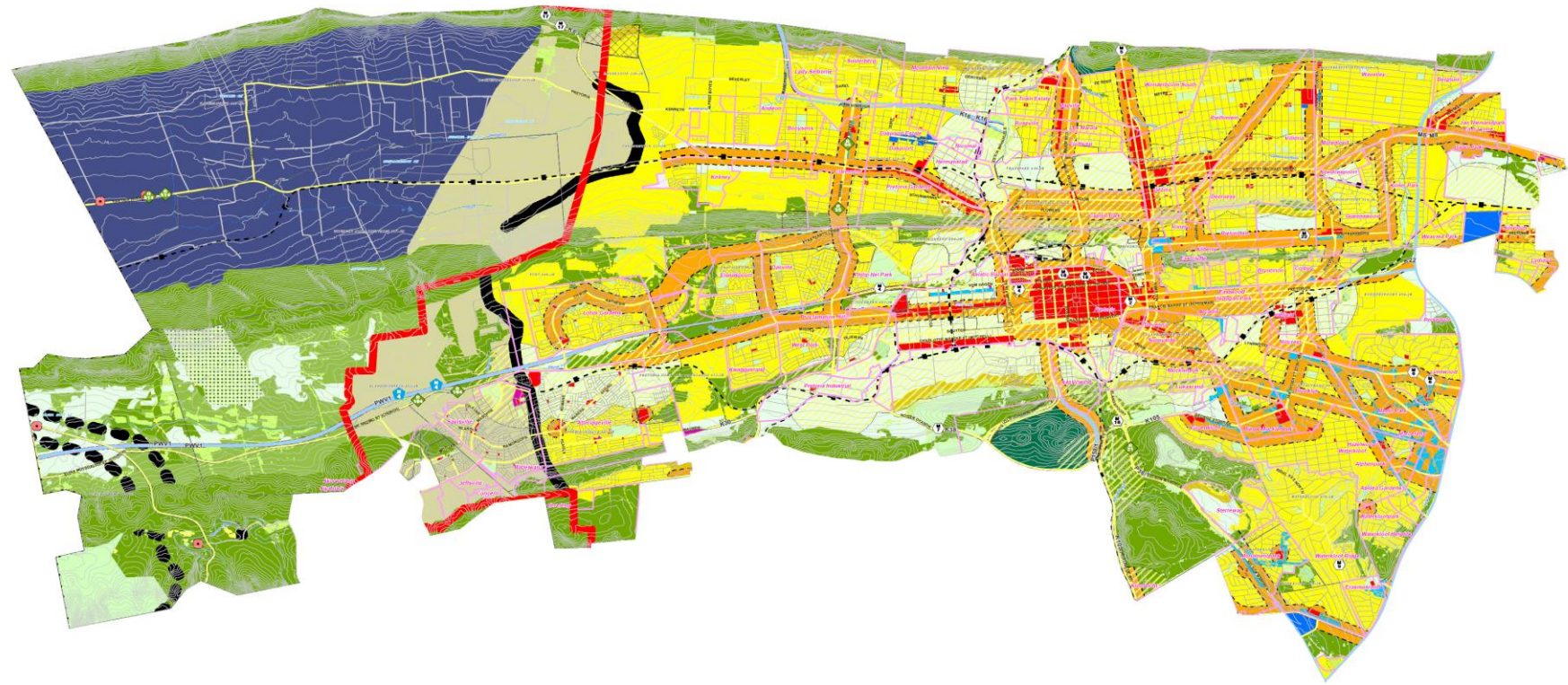
#### **4.15.15 Community Service Centres**



Remote rural areas most of the time do not have the convenience of facilities and amenities within easy reach and sometimes have to rely on the closest urbanized area to fulfil certain basic needs. Because of the extensiveness of most rural areas it is therefore most logical to concentrate whatever facilities, services and amenities that can and should be provided together close to the bulk of the population at a location that is the most accessible to all. As transport provides accessibility, road

junctions or cross roads tend to provide most accessible locations for surrounding populations in vast rural areas. It is the challenge of each region to identify such suitable and accessible location/s to establish Community Service Centre/s for its rural component.

Region 3: Rural plan



Legend			
	Edited version Urban Edge 2017		Game / Nature Reserves
	Main Rural Roads		High Potential Agriculture
	Low Density Zone		Offices
	Mixed Use		Core
	Mines		200m 30/60 ha Linar Line
	Future Regional Cemetery		Industrial
	Tourism Potential Places		Suburban density
			Human Settlement
			Rural
			Rural Service Centre
			Sensitivity Protective Areas
			Cradle Buffer Zone
			Development Edge
			Management Zone
			Future Urban Development Areas
			Community Service Centre
			Biodiversity Zone

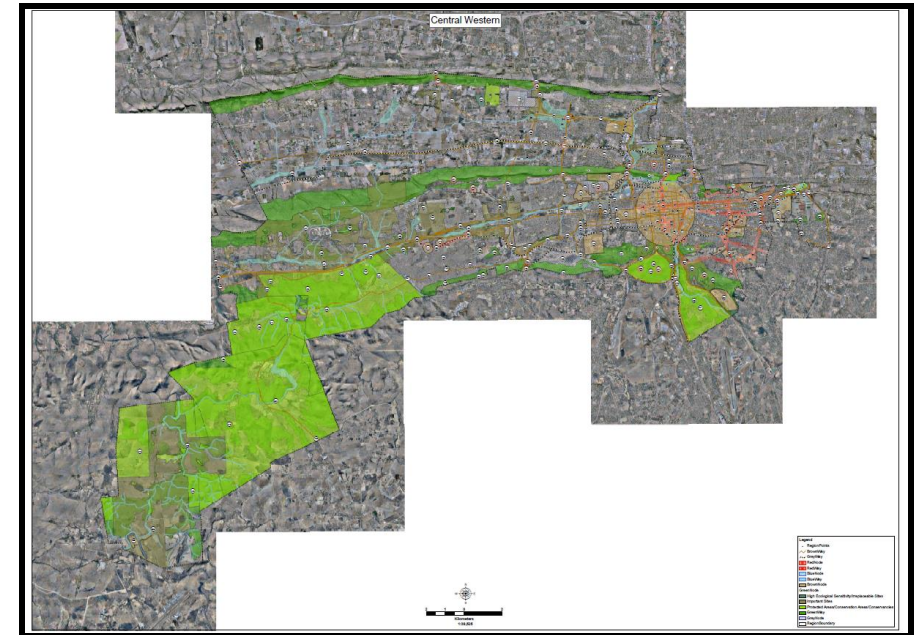


#### 4.16 OPEN SPACE AND ENVIRONMENTAL AREAS

The RSDF plan does not indicate the whole metropolitan open space network because of its concern with open spaces on a regional scale only. The plan shows as 'Open Space' all rivers and water courses, all mountain ranges and ridges as indicated in the TOSF, all nature areas and conservation areas, as well as the major brown nodes. The plan also shows as 'Environmental Areas' all irreplaceable and important sites, as identified and defined by GDARD, as well as all conservancies. Brown, grey and red nodes and ways are not shown. For complete and detailed information regarding the metropolitan open space network, it is essential and of utmost importance that the TOSF plans is always consulted together with the RSDF plan.

The major open space network form-giving elements have been indicated in the RSDF. Potential place-making opportunities exist along WF Nkomo Street West, at entrances to the Inner City, gateways at ridge crossings and at the proposed Saulsville Station urban core, around Church Square and Helen Joseph Street Mall, the Union Buildings, the Tshwane Kopanong area and the Pretoria Zoo. The Wolvespruit running along the N1 in the Erasmuskloof area also creates opportunities for place-making in Region 3.

Discussions with GDARD and the Municipality's Environmental Planning Section must be held before any development or change of land-use application can be submitted, to determine whether the important sites, irreplaceable sites and high ecological sensitivity sites are subject to a possible E.I.A. survey.



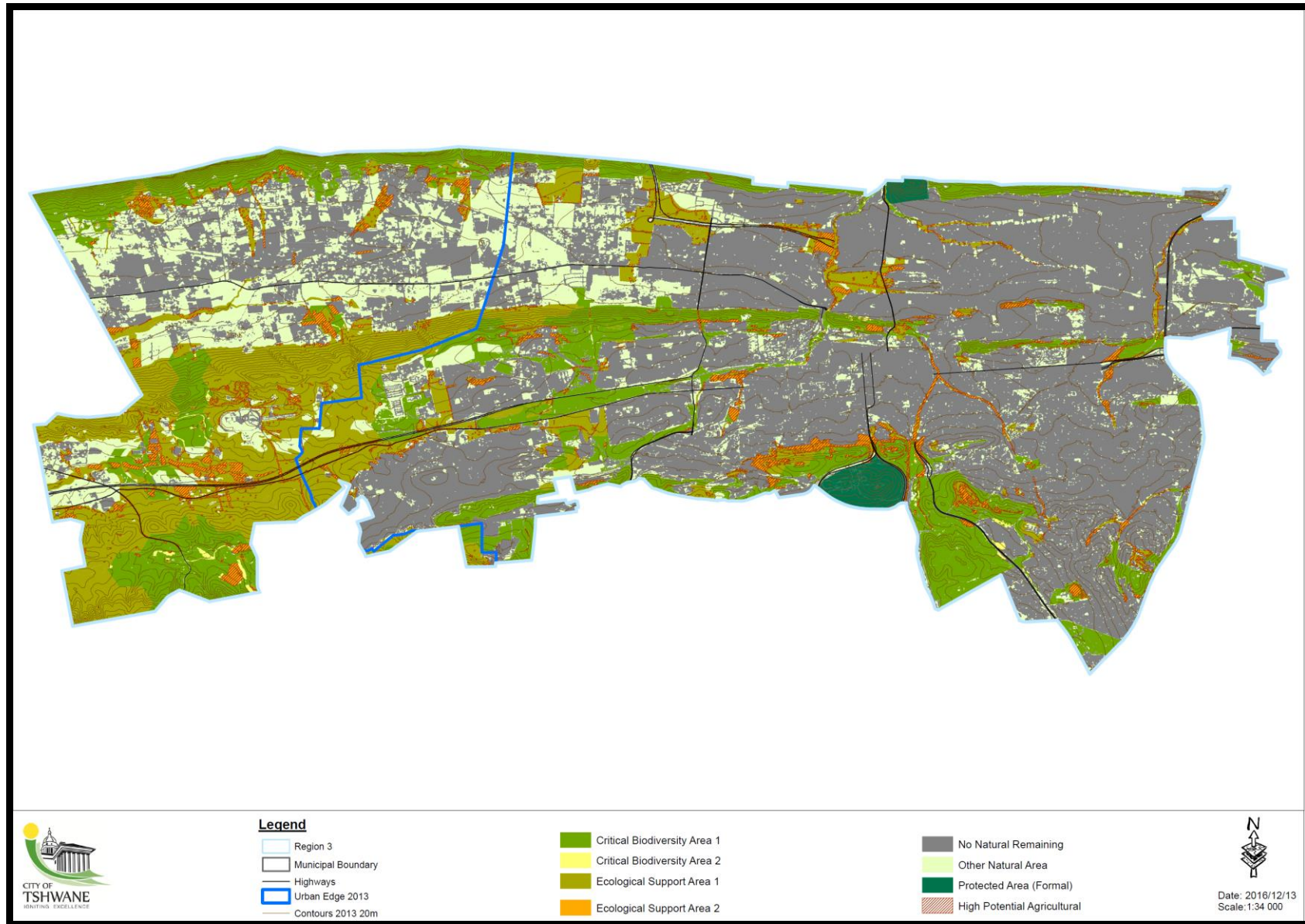
The Biodiversity map and tables below must be used as a guideline for land-use management in these areas.

## LAND USE PLANNING GUIDELINES -

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Protected Areas</b>	Formal Protected Areas and Protected Areas pending declaration under NEMPA.	Maintain natural land. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Maintain or obtain formal conservation protection.	Conservation and associated activities.	All other land-uses.
<b>Critical Biodiversity Areas (1)</b>	Areas required to be maintained in a natural or near natural state to meet targets for biodiversity pattern (features) or ecological processes.	Maintain natural land and ecological processes. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Obtain formal conservation protection where possible. Implement appropriate zoning to avoid net loss of intact habitat or intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations with strict control on environmental impacts and carrying capacities, where the overall there is a net biodiversity gain. Extensive Livestock Production with strict control on environmental impacts and carrying capacities. Urban Open Space Systems	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production ( all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures). Arable Agriculture (forestry, dry land & irrigated cropping). Small holdings
<b>Critical Biodiversity Area (2)</b>	Cultivated landscapes which retain importance for supporting threatened species	Maintain current agricultural activities. Ensure that land use is not intensified and that activities are managed to minimize impact on threatened species.	Avoid conversion of agricultural land to more intensive land uses which may have a negative impact on threatened species or ecological processes.	Current agricultural practices including arable agriculture, intensive and extensive animal production, as well as game and ecotourism operations, so long as these are managed in a way to ensure populations of threatened species are maintained and the ecological processes which support them are not impacted.	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). More intensive agricultural processes than currently undertaken on site.



Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Ecological Support Areas (1)</b>	Natural, near natural and degraded areas required to be maintained in a ecologically functional state to support Critical Biodiversity Areas.	Maintain ecological processes.	Implement appropriate zoning and land management guidelines to avoid impacting ecological processes. Avoid intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations. Extensive Livestock Production. Urban Open Space Systems. Low density rural residential, smallholdings or resorts where development design and overall development densities allow maintenance of ecological functioning.	Urban land-uses including Residential (including golf estates), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production ( all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures) Arable Agriculture (forestry, dry land & irrigated cropping). Note: Certain elements of these activities could be allowed subject to detailed impact assessment to ensure that developments were designed to maintain overall ecological functioning of ESAs.
<b>Ecological Support Areas (2)</b>	Areas with no natural habitat which retain potential importance for supporting ecological processes.	Avoid additional impacts on ecological processes.	Avoid intensification of land use, which may result in additional impact on ecological processes.	Existing activities ( e.g. arable agriculture) should be maintained, but where possible a transition to less intensive land uses should be favoured.	Any land use or activity which results in additional impacts on ecological functioning, mostly associated with the intensification of land use in these areas (e.g. Change of floodplain from arable agriculture to an urban land use or from recreational fields and parks to urban).
<b>Other Natural Areas</b>	Natural and intact but not required to meet targets, or identified as Critical Biodiversity Areas or Ecological Support Areas.	No management objectives, land management recommendations or land-use guidelines are provided as these areas are outside the ambit of the Bioregional Plan. These areas are nevertheless subject to all applicable town and regional planning guidelines and policy. Where possible existing transformed areas should be favoured for development before "Other natural areas" as before "Other natural areas" may later be required either due to the identification of previously unknown important biodiversity features on these sites, or alternatively where the loss of "Critical Biodiversity Areas" has resulted in the need to identify alternative sites.			
<b>No natural habitat remaining</b>	Transformed or degraded areas which are not required as Ecological Support Areas, including intensive agriculture, urban development, industry; and infrastructure.				



#### 4.17 WETLAND MANAGEMENT PLAN FOR TSHWANE

This plan has been developed to improve wetland management in the City of Tshwane. Wetlands are critical to the well-being of the local economy, communities and individual people and provide a range of advantages for the City of Tshwane.

Wetlands can be regarded as “ecological infrastructure”. They are as important as other types of infrastructure for providing a range of services for residents. As with other forms of infrastructure such as roads, wetlands also require management and maintenance in order to keep them in good condition and functioning well.

Ecosystem services provided by wetlands include: water storage, flood protection, water purification, food, materials, habitat for species, carbon storage, local climate and air quality regulation.

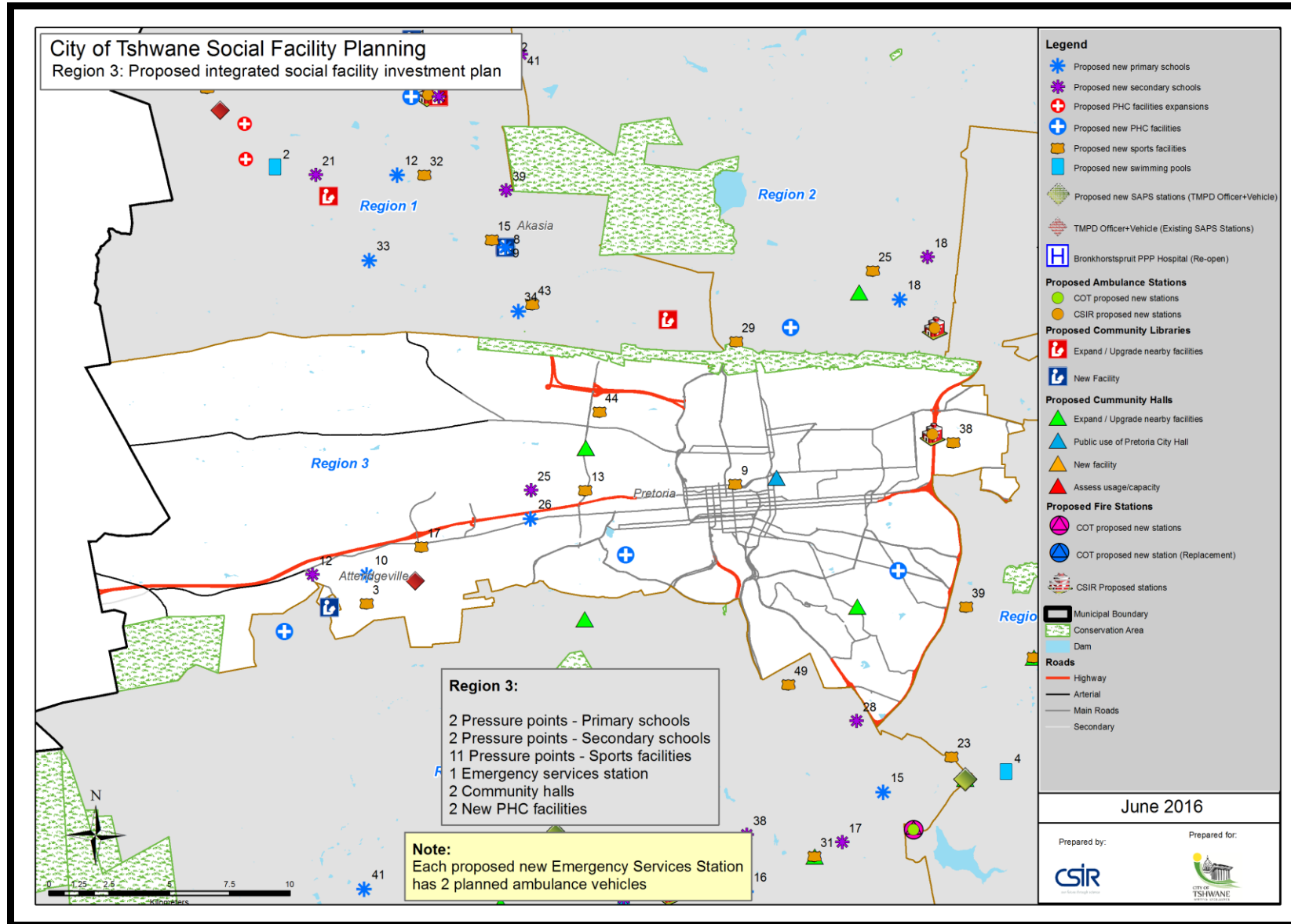
It is important to take note that wetlands benefit all the residents of the City of Tshwane. Although the Municipality is the custodian of wetlands only on municipal properties, all the wetlands supply ecosystem services to all residents.

The goals of the plan in Region 3 are to ensure that:

- In areas where the continuing loss or degradation of wetlands, or their functions, have occurred and/or reached critical levels, wetlands are rehabilitated or enhanced.
- All departments are aware of the importance of wetlands and wetland conservation.
- The functions of wetlands are recognised in resource planning, management and economic decision-making with regard to all programmes, policies and activities within the City of Tshwane.
- Local communities collaborate in wetland management.



## 4.18 SOCIAL FACILITY PLANNING





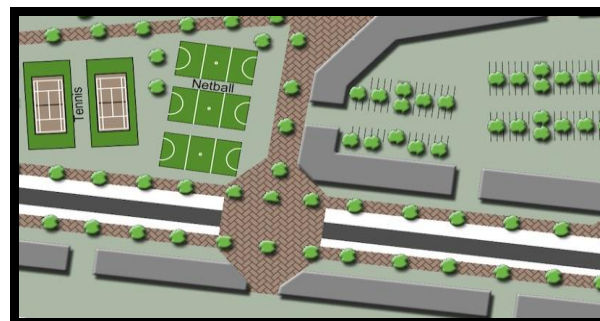
#### 4.18 SOCIAL FACILITY PLANNING

From a spatial or location perspective, the clustering of parks and social facilities in and around corridors and other points of highest accessibility (such as major transport facilities) is of vital importance.

Different social facilities such as schools, clinics, pay points, libraries, active and other open space should be clustered at one central point in the residential neighbourhood and should be accessible in terms of public transport.

Public space and specifically municipally owned property should be kept in reserve as the need for social facilities increase. Open green space should not be privatised. Existing open spaces and parks must be protected and not used for development purposes

The focus should be to encourage community and stakeholder collaboration; and to retain, enhance and encourage cultural assets. Neighbourhood amenities must be provided as densification takes place. Where neighbourhoods lack sufficient open space, new parks and recreation areas must be introduced, especially in areas earmarked for higher density development. Activity support is the presence of activity planned for the space. Development designs should locate plazas, for example, in places where they are most likely to be used for gatherings (both organised events and informal meetings).

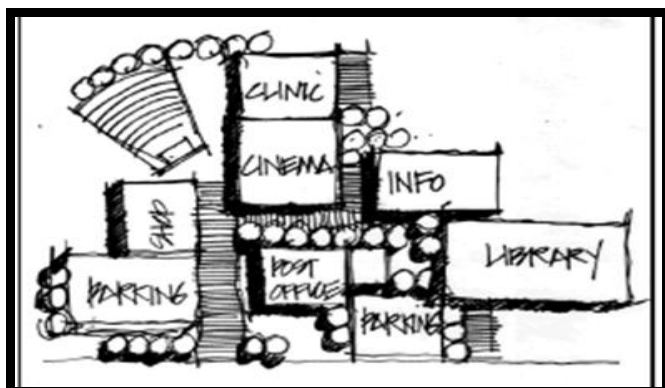


##### Primary schools needed in Region 3

Primary schools identified pressure points and their attracted population / demand – Region 3		
Attracted population	Facility equivalent	Suburb / Sub-place
4 074	An equivalent to 4 schools of 1000 pupils	Saulsville / Atteridgeville
1 077	An equivalent to 1 school of 1000 pupils	Kwaggasrand

##### Secondary schools needed in Region 3

Secondary schools identified pressure points and their attracted population / demand – Region 3		
Attracted population	Facility equivalent	Suburb / Sub-place
2 114	Equivalent of 2 secondary schools of 1000 pupils	Saulsville / Atteridgeville
879	Equivalent of 1 secondary schools of less than 1000 pupils	Elandspoort



## PART FIVE: DETAIL PRECINCT PLANS

### 5.1 EXISTING PRECINCT PLANS

Previously a number of precinct plans and policies have been developed for areas within the Region which are in line with the CDS and MSDF. The following list of policies and plans with their main proposals are included as part of this framework:

#### 5.1.1 TSHWANE INNER CITY DEVELOPMENT STRATEGY

The Inner-City of Tshwane is a place of strategic significance for the city itself and within a broader national context. A large part of Tshwane's international profile and national importance is captured in its symbolic role as National Capital. The City of Tshwane inner-city has therefore been identified as one of the metropolitan cores in terms of the MSDF, over and above that it is one of the most important cities of South Africa as the Capital City of the Country. Celebrating the Capital is one of the strategic focus areas of the City Development Strategy. This has implications for the Region, which incorporates the Inner City as the most prominent physical manifestation of the Capital City image.

The National government has also identified the Tshwane inner-city as the seat of Government through National Cabinet decisions taken during October 1997 and February 2001 respectively. The City has therefore embarked on an extensive plan to locate a sizeable number of Government departments within the inner-city as it is the capital city and also to ensure that government is accessible to the wider community. In relation to its capital city status, the city should reflect the aspirations of its people in the quality of public space, efficiency of public transport, visibility and appropriateness of government offices. The Government head office development presents an opportunity to capitalize on public investment leverage to address the quality of space and architecture in the city.

The inner-city mainly consists of mixed land-use which includes commercial, residential, business and offices and will continue to have mixed land-uses. The vision for the inner-city is to promote a pedestrian friendly environment and to encourage public transport, promote green spaces and make it a livable and efficient city in terms of movement. It also entails the promotion of higher densities in order to support the infrastructure and to accommodate more people, thereby reducing travel times and promoting the compact city. Tshwane's unique open space potential must be harnessed to support the capital city vision. A high quality public environment can be created which is essential to boost the capital city image. It will also boost the city's attractiveness for foreign and local business activities.

No city can exist and be managed in a sustainable way without a well-defined and well managed open space network. Tshwane is very fortunate in having unique open spaces within its borders and every effort must be made by the authorities to preserve and even expand the open space network.

The inevitable population increases of Tshwane will in future put even more pressure on the usage of existing open space and their value as an asset for the city will increase. All open spaces must therefore be considered as a land use of equal importance to all other land-uses as they form an integral part of the urban fabric. The policy statements in the TOSF regarding open spaces are therefore totally supported by the RSDF.

The Tshwane Inner City Development Strategy (ICDS) focuses on the regeneration and the restructuring of the Tshwane Inner City. The inner city is a place of strategic significance which, at present, is not functioning to its full potential. The emphasis of restructuring and redevelopment should aim to focus public budget expenditure on



specific projects and catalytic interventions in order to create strong stimuli for private sector investment.

The vision of the Inner City, building on this ideal of restructuring and redevelopment, is based on three principles.

- In the first place Tshwane –and specifically the Inner City – is seen as a cultural city. There are a number of cultural and heritage assets within the city allowing for the opportunity to create a strong tourism niche centred on the Tshwane inner city. In this regard it is also important to focus on the appearance of the environment in order to create and sustain urban design principles such as vibrancy, colour and texture.
- Secondly the inner city is seen as the Capital City, both of Africa and South Africa. The current quality of the inner city does not, however, support this vision of a world-class capital city. In order to adhere to the standards of major capital cities around the world, restructuring and redevelopment should focus on the promotion of the quality of the inner city.
- Finally, the inner city has to be transformed to an investment destination of choice. It should become an investment node affording viable opportunities to the entire population of Tshwane. Key elements that should be focused on include the following: service infrastructure, accessibility, human profile, high profile developments, convenience, management, environmental quality and identity.

These three principles are underlain by the symbolic concept of confluence. The inner city is a meeting place expressed in terms of contrasts. It is these contrasting elements that create an interwoven lattice of opportunities within the city. The Inner City has the highest order commercial, residential and institutional investment in the metropolitan area. Broad land-use districts include:

- The high density residential areas of Sunnyside and Arcadia.
- The Inner core – mainly including office-, retail, commercial- and residential intensive development.
- Marabastad – this area is reminiscent of the city's historic African vibrancy. It is a service zone with a significant number of people moving through the area. It is subject to extensive urban decay.
- There is a service industry zone - mostly smaller entrepreneurs – along the fringes of the inner core area.

The inner core and Marabastad areas represent the heart and gravitational nucleus of the broader inner city. These areas are significant in terms of restructuring Tshwane as the Capital City. Concentrating redevelopment efforts in this sphere will allow for the greatest impact.

The RSDF for Region 3 is in support of the Tshwane Inner City Development Strategy.

#### **5.1.2 PRETORIA INNER CITY SPATIAL DEVELOPMENT FRAMEWORK**

A local spatial development framework is currently prepared by the COT for the Inner City.

The proposals contained in this draft local framework will not be in conflict with the goals and objectives of the Regional Spatial Development Framework and should be used as a guideline in considering development applications.

#### **5.1.3 TSHWANE INNER CITY PROJECT (RE KGABISA TSHWANE)**

The National Department of Public Works commissioned a multidisciplinary team in 2004, with support of Cabinet, to prepare a plan involving a spatial strategy, a financial strategy and a comprehensive needs analysis for each department and an implementation strategy to roll out the re-development of National

Government Head Offices in Tshwane. One of the components of the plan is a spatial guidance tool for locating and managing the Government Accommodation in the Inner City. This tool, integrated with other policy documents and projects, will result in an improved image for Government in Tshwane and the stimulation of growth and development in the Inner City.

The vision of the framework is built around the need not only for an improved public image of National Government, but also of an improved public environment within which to work. Some of the main points of the vision are therefore investment in public infrastructure, improved urban management, creation of a public space network, creation of a public transport system and establishing an overall vision for the Capital City.

#### **5.1.4 ARCADIA STREET SPATIAL DEVELOPMENT FRAMEWORK**

A local spatial development framework was prepared and approved in 2002 by the Tshwane Municipality for Arcadia Street, between Beckett Street and Festival Street.

The approved scenario recognises the need to preserve and protect the special urban quality of the current residential area, but also provides an opportunity to absorb some of the development pressure that exists. The proposals contained in this local framework are not in conflict with the goals and objectives of the Regional Spatial Development Framework and should be used as a guideline in considering land use applications in Arcadia Street.

It is recommended that the proposals of the Framework be amended to include offices, not only on corner erven, but all along Arcadia Street. In addition, the character of that part of Arcadia Street between Festival Street and Hill Street has changed to such an extent that the proposals of the Framework can no longer be implemented effectively there. Instead, land-use proposals in that area should rather be evaluated against the proposals for the

Embassy Precinct in the more recently drafted Hatfield Spatial Development Framework (see Paragraph 5.1.7 below).

#### **5.1.5 GROENKLOOF SPATIAL DEVELOPMENT FRAMEWORK**

The Groenkloof SDF was approved by Council in 2005. The existing legally zoned business uses are retained and the only other non-residential land-use allowed along George Storrar Drive is offices. The residential density proposals of the RSDF, as set out in Paragraph 4.12, should be applied to Groenkloof.

#### **5.1.6 DRAFT BROOKLYN NODE SPATIAL DEVELOPMENT FRAMEWORK**

Brooklyn is an existing mixed land-use node that has evolved into one of the city's most significant metropolitan nodes outside the CBD. The area is characterised by strong retail and office components. It also has certain unique element such as a large number of diplomatic establishments and has a significant entertainment sector. Apart from existing dwelling-houses and group-housing developments in and around the node, a variety of residential typologies have been approved in recent months, which are in support of the economic function the node serves.

The importance of the Brooklyn metropolitan node is further emphasized by the Gautrain feeder route to and from the Hatfield Station that encircles the node. This stresses the importance of this metropolitan node, linking it with the Pretoria Station (and the CBD), Johannesburg and O.R. Tambo International Airport.

Bulk municipal infrastructure capacities, as well as the traffic capacity of the major routes running through the node, also need to be improved and in this regard the conversion of the Brooklyn Circle to a traffic light intersection is receiving urgent attention.

Further development and densification of this node is strongly supported on both a horizontal and a vertical scale. The node should include the full spectrum of mixed land-uses, including high density residential uses to support the public transport system of the area.

Expansion of the node is basically contained by Florence Ribeiro Avenue to the west, the Austin Roberts Bird Sanctuary and Justice Mahomed Street to the north and residential suburbs to the west (Groenkloof), to the south (Waterkloof) and to the east (Brooklyn).

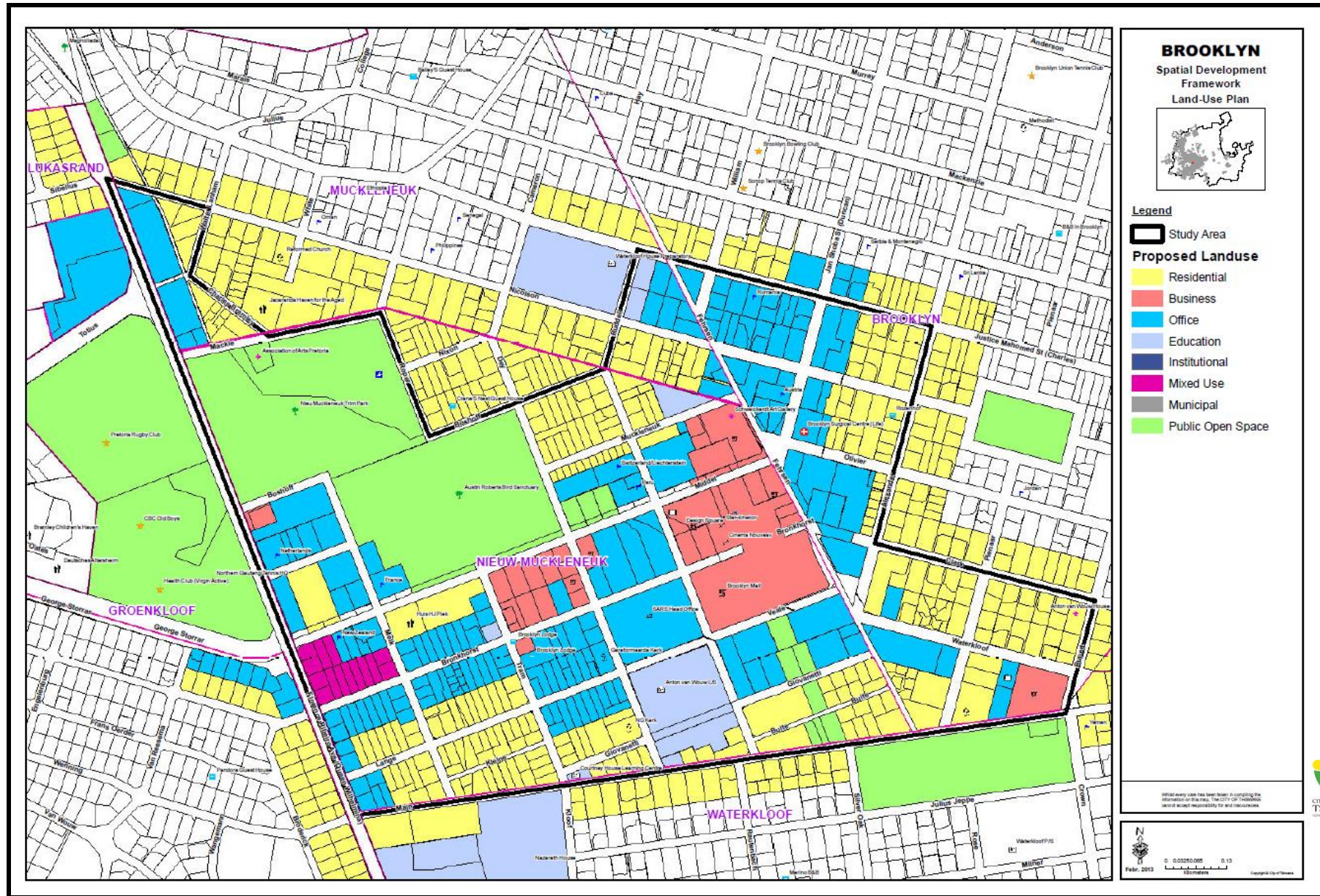
A number of distinct land-uses can be identified within the node. They are:

- The Core area, comprising the area around the existing Brooklyn Circle. The highest intensity of mixed land uses should be accommodated within this precinct, with the most intense development immediately surrounding the circle.
- Offices are mainly located around the core area and along Main Street, Florence Ribeiro Avenue and Bronkhorst Street. The area west of the existing core area up to Florence Ribeiro Avenue is experiencing most change into an office precinct.
- The draft Brooklyn Node SDF proposes high density residential uses that serve as a buffer to contain the expansion of the node horizontally. The existing residential character of the surrounding areas of Waterkloof, Brooklyn, Muckleneuk and Groenkloof should be retained, but significantly higher densities in appropriate locations must be achieved to support the optimal functioning of the node and the public transport potential of the feeder route to the Gautrain station in Hatfield.

The RSDF recognises that the Brooklyn Node is developing into one of the financial nodes of Gauteng, a function traditionally fulfilled by the Inner City. It also acknowledges the changing role and function differentiation between the Inner City and other

metropolitan nodes, and it recognises the need for this to be managed more efficiently to ensure a complimentary symbiosis for the larger good of the metropolitan area.





### 5.1.7 DRAFT HATFIELD SPATIAL DEVELOPMENT FRAMEWORK (HSDF)

Hatfield is an existing mixed land-use node that has evolved into one of the city's most significant metropolitan nodes outside the CBD. The area is characterised by strong retail, motor service and office components. It also has certain unique elements such as a large number of diplomatic establishments and a large resident student community of the adjacent University of Pretoria (UP).

The importance of the Hatfield metropolitan node is further emphasized by it having been chosen as one of only three Gautrain station sites in Tshwane, the other two being in the CBD and in Centurion. In addition, the existing Metrorail and the proposed BRT (Bus Rapid Transit) systems running through the node, make it a public transport hub with excellent accessibility for all traffic modes.

Bulk municipal infrastructure capacities, as well as the traffic capacity of the major routes running through the node, also need to be improved and in this regard the conversion of Jan Shoba Street and Grosvenor Streets to a north-south one-way pair should receive urgent attention.

Further development and densification of this node is strongly supported on both a horizontal and a vertical scale. The node should include the full spectrum of land-uses, including high density residential uses to support the public transport system.

The draft HSDF has been developed during the past decade into a comprehensive planning document, addressing a wide variety of developmental aspects in great detail within its study area. Apart from the Hatfield Metropolitan Node, the HSDF contains proposals for a much wider area that extends from the eastern edge of the inner city at Beckett Street to the LC de Villiers sports grounds and from Lynnwood Road to the Colbyn Valley.

In particular, two broad development principles of the draft HSDF need to be applied consistently to the area under discussion. The first principle is that the most intense development (the highest buildings with the highest floor area ratio (FAR) and the highest residential densities) should take

place immediately around the Gautrain station and the commercial core as the focal points of the Hatfield Metropolitan Node. Conversely, it means that the further a proposed development is located from these areas, the lower the development controls for that particular development should be (hereafter referred to as the location principle).

The second sound principle of the HSDF is that higher rights (development controls) will be allocated to larger land parcels and lesser rights to single erven or smaller site assemblies, particularly in the core parts of the node (hereafter referred to as the site assembly principle). The aim of this principle is firstly to strongly encourage developers to assemble larger land parcels for consolidated development with the accompanying advantages of less entrances/exits on the already congested roads and other economies of scale. Secondly, this will minimise small isolated developments which might act as an obstacle in the way of larger block or half block developments.

The HSDF identifies six distinct precincts with differing characteristics within its study area. These precincts are depicted on the map at the end of this paragraph. The various precincts, with some broad development guidelines set out for each by the HSDF, are the following:

#### Core Area

The Core area comprises the area roughly within a 0,5 km radius from the Gautrain station. It is demarcated by Glyn Street in the east, the railway line and End Street in the north-east, Stanza Bopape Street in the north, Festival Street in the west and Prospect Street in the south. It also includes a small area south of Prospect Street on both sides of Jan Shoba Street.

The highest intensity of mixed land-uses should be accommodated within this precinct, with the most intense development immediately surrounding the station and the commercial core in Burnett Street.





Proposals of a Transit Mall along Burnett street

### **Embassy Precinct**

The Embassy precinct is located along Stanza Bopape, Pretorius and Francis Baard Street to the west of the Core Area, and also includes the area along Park Street and in Arcadia Street between Festival and Hill Streets. A land-use mixture of residential, institutional, offices and limited retail at appropriate locations should be accommodated within this precinct, but at a much lower density than in the Core Area.

### **Arcadia Street**

The Arcadia Street precinct comprises Arcadia Street between Hill and Beckett Streets. This area has a unique conservation-worthy character, as recognised by the Arcadia Street Development Framework adopted in 2002. Land-uses similar to what is permitted in the Embassy Precinct (retail excluded), should be accommodated in this area, but with particular attention being paid to the low density conservation-worthy character of the precinct.

### **University Precinct**

The University precinct comprises the UP main campus and adjacent related land-uses such as the hostels and other student accommodation. High density residential as well as land-uses supportive of the university and its activities should be accommodated in this precinct.

### **Hatfield East**

The Hatfield East Precinct is located to the east of Glyn Street, including a small area to the west of Glyn Street along South Street. The existing residential character of this area should be retained, but significantly higher densities must be achieved to support the optimal functioning of the nearby Gautrain station and the university. Densities should be scaled down towards the east (with increased distance from the Gautrain station), i.e. in the block between Jan Shoba and Glyn Street (part of the Core Area) development may be in excess of 10 storeys high, in the block between Glyn and Richard Street development should be less than 10 storeys high and to the east of Richard Street a maximum of 4 storeys may be considered. These height restrictions are to be further qualified by the site assembly principle.

### **Hillcrest**

The Hillcrest precinct comprises of the remainder of the Hillcrest Township. Land uses similar to those in the Embassy Precinct should be supported in this precinct, as well as land uses supportive of the adjacent university and its associated activities.



## DETAILED DEVELOPMENT GUIDELINES FOR HATFIELD

In addition to the broad development guidelines contained in the RSDF and the draft HSDF, the following more specific development guidelines should be applied in the various precincts:



Source :Respublica, Hatfield Square, 2016

### Core Area

In the HSDF it is proposed that all site assemblies smaller than 5 000 m<sup>2</sup> in the core area should be permitted a maximum FAR of only 1,0 and maximum height of only 2 storeys (parking included), while sites larger than 5 000 m<sup>2</sup> can have a FAR of up to 10,0 and height of up to 30 storeys. Sites just smaller than 5 000 m<sup>2</sup> is therefore severely “penalised” by being allowed a FAR of only 1,0 while slightly larger sites qualify for a much higher FAR.



A more equitable approach would be to apply a sliding scale based on the erf size and location of a site to determine the FAR and height that will be supported for a particular development. This would strongly support the application of both the location and the site assembly principles. For this approach the core area are divided into 3 zones: the Inner Zone, the Transition Zone and the Outer Zone.

The Inner Zone consists of the block containing the Gautrain station, as well as the 6 street blocks between Arcadia, Grosvenor, Prospect and Festival Street. The Transition Zone comprises of the remaining blocks south of Pretorius, west of Glynn and north of Park Street, as well as the block directly north of Belgrave Square. The remaining part of the core area forms the Outer Zone.

It should be noted that due to the dynamic and volatile nature of the Core Area and the large scale of developments there, the proposals in the table below cannot always be strictly applied and deviations therefrom could occur if well motivated.



Source :GASS, Hatfield Square 2016

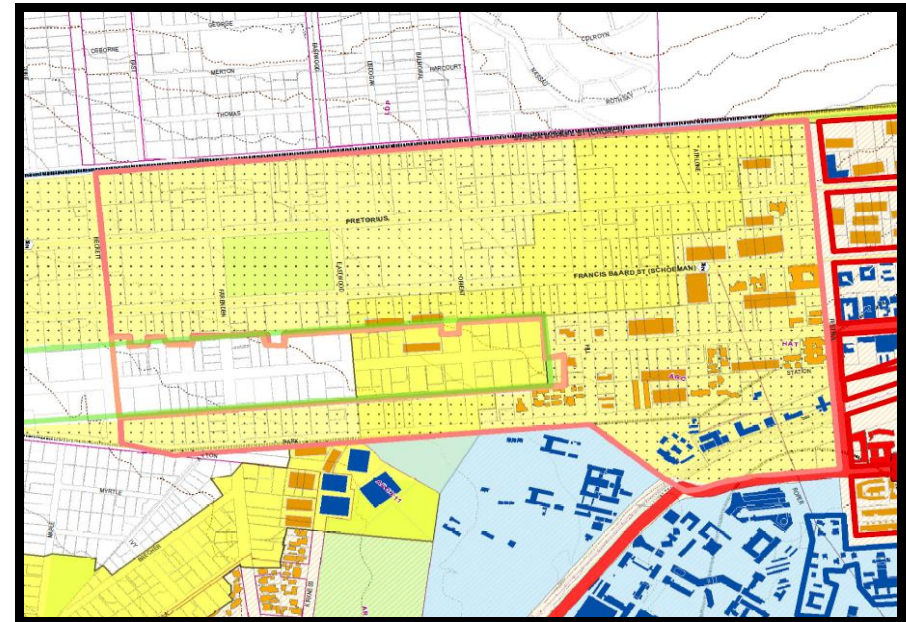
LOCATION/ERF SIZE	5000+ m <sup>2</sup>	2000 - 4999	< 2000
Inner Zone	Unlimited FAR & unlimited height	FAR = Erf size/1000 Max height 15 storeys	FAR = Erf size/1500 Max height 4 storeys
Transition Zone	FAR = Erf size/1000 Max height 15 storeys	FAR = Erf size/1250 Max height 12 storeys	FAR = Erf size/1500 Max height 3 storeys
Outer Zone	FAR = Erf size/1250 Max height 12 storeys	FAR = Erf size/1500 Max height 8 storeys	Max FAR 0,8 Max height 2 storeys

In addition to these proposals, the maximum FAR should also be capped as follows for developments in the category of site size over 5 000 m<sup>2</sup>: maximum FAR of 10 in the Transition Zone and maximum FAR of 5 in the Outer Zone. Developments which are directly linked to the Inner Zone

street blocks by means of an air bridge (therefore negating the need for pedestrians to cross any streets), may also be regarded as part of the Inner Zone. Directly along Stanza Bopape Street the height of developments is restricted to two storeys (or three storeys if the site is excavated and only two storeys are visible from the street level). A 5 m street building line must also be maintained. An additional storey may be considered in the block between Glyn and Jan Shoba Streets.

### Embassy Precinct

The nature of the Embassy Precinct differs markedly from that of the Core Area. There is no single focal point such as the Gautrain station, but the precinct acts more as a transition zone between the Core Area of the Hatfield Metropolitan Node and the Inner City along major traffic corridors such as Stanza Bopape, Pretorius, Francis Baard and Park Street. The mobility function of these routes needs to be strongly protected by allowing much less intense development than in the Core Area.





The development guidelines in the table below are taken from the original draft HSDF and are based on the site assembly principle.

SIZE OF SITE ASSEMBLY	MAX FAR	MAX HEIGHT (PARKING INCL)
Smaller than 2 000 m <sup>2</sup>	0,6	2 storeys
2 000 to 3 500 m <sup>2</sup>	1,0	4 storeys
3 500 to 5 000 m <sup>2</sup>	2,0	6 storeys
Larger than 5 000 m <sup>2</sup>	More than 2,0	More than 6 storeys

However, this approach is problematic in that for instance a development on a site of 2 000 m<sup>2</sup> and another development on a site of 3 499 m<sup>2</sup> are allocated the same FAR of 1,0 whereas a development on a site 1 m<sup>2</sup> bigger at 3 500 m<sup>2</sup> may have a FAR of double that (2,0). It is therefore proposed that a sliding scale based on the erf size rather be used to determine the FAR that will be supported. This different method of calculation (as set out in the table below) renders the same FAR for developments on sites of 2 500 m<sup>2</sup> and 5 000 m<sup>2</sup> (i.e. a FAR of 1,0 and 2,0 respectively), but it is much more equitable in respect of sites with sizes in between. It should be noted that an artificially compiled site assembly that runs right through a street block will be considered as two separate assemblies. It is further proposed that these guidelines be strictly applied in the area to the east of Hill Street (closest to the Core Area) to ensure consistency and equity.

SIZE OF SITE ASSEMBLY	MAX FAR	MAX HEIGHT (PARKING INCL)
Smaller than 2 000 m <sup>2</sup>	0,6	2 storeys
2 000 m <sup>2</sup> and larger	Erf size in m <sup>2</sup> divided by 2 500	One storey for every 1 000 m <sup>2</sup> of erf size or part thereof

The area to the west of Hill Street are removed from the Core Area to such an extent that the application of the site assembly principle is not so critical here, allowing for a measure of deviation from the guidelines. A typical residential development (of which there are a number of examples in this

area), is done at a FAR of 1,0 and height of 12 m, often on sites smaller than 2 000 m<sup>2</sup>. Again, the height along Stanza Bopape Street is restricted to two storeys (or three storeys if the site is excavated and only two storeys are visible from the street level).

### Arcadia Street

Development in the Arcadia Street Precinct is guided by the comprehensive Development Framework for Arcadia Street as approved by Council in 2002 (see Paragraph 5.1.4). The proposals of this plan is aimed at the conservation of the unique historic residential character of the properties along the street and allows for residential development at a maximum FAR of 0,6 and offices up to a FAR of 0,4. The existing historic buildings or at least the residential facades, the gardens and the fencing as seen from Arcadia Street should be retained as far as possible and no parking should be allowed between the buildings and the street. Not more than 2 storeys should be permitted near the street front although buildings of up to 4 storeys may be considered at the back (away from the street). Careful consideration should be given to proposed new developments on the properties in Francis Baard and Park Street which abut onto this precinct in order to discount its impact on the Arcadia Street Precinct.



### University Precinct

The UP has compiled a separate development framework for their campus and the surrounding area. The campus already has high development rights (a FAR of 2,0 and height of 19 m).

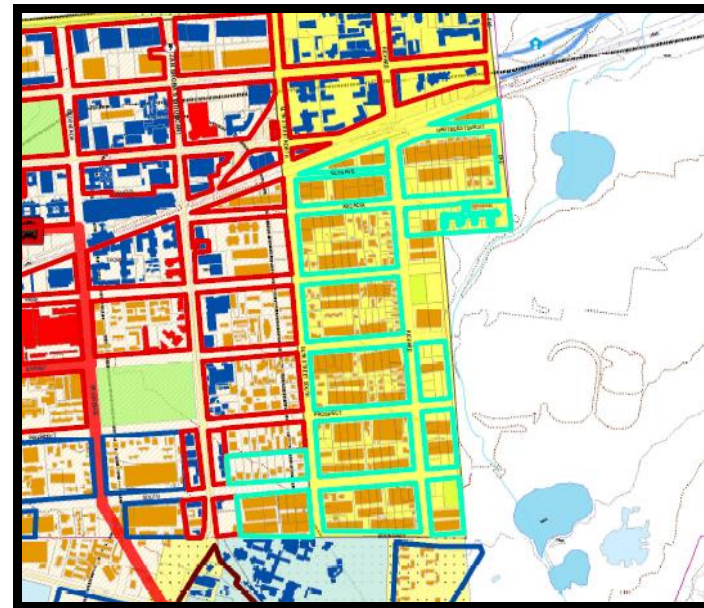
Due to the boxing effect of the Core Area to the north, the railway line and Loftus rugby stadium to the west and Lynnwood Road/ Pretoria Boys High School to the south, the natural direction of expansion for the campus and its associated land-uses is towards the east. In this area up to Jan Shoba Street, preference should be given to high density student housing developments. The precinct is relatively close to the Gautrain station and will also eventually be served by two lines of the BRT system. The precinct displays characteristics similar to those of the Hillcrest precinct and the same development guidelines should therefore be applied in both:

SIZE OF SITE ASSEMBLY	MAX FAR	MAX HEIGHT (PARKING NOT INCL)
Smaller than 2 000 m <sup>2</sup>	0,6	2 storeys
2 000 m <sup>2</sup> and larger	Erf size in m <sup>2</sup> divided by 1 500	One storey for every 750 m <sup>2</sup> of erf size or part thereof



### Hatfield East

As is the case with the Arcadia Street Precinct, development in the Hatfield East Precinct also used to be guided by a Council approved planning document, the Hatfield East Spatial Development Framework (HESDF) of 2003. Living-units (a residential unit design for a single person and usually aimed at the student housing market) were proposed at a maximum density of 80 units per hectare and at 120 units per hectare in certain restricted locations (particularly along South Street). These density restrictions should still be applied in the case of all smaller site assemblies (less than 2 000 m<sup>2</sup>).



The development of this precinct for higher density residential development (particularly aimed at the student housing market) is confirmed and strict enforcement should once again be given to the site assembly principle. However, east of Richard Street no development in excess of 4 storeys should be considered, in line with the proposals already discussed above.

The table below is similar to the one proposed for the Embassy Precinct and should also be applied in this precinct:

SIZE OF SITE ASSEMBLY	MAX FAR	MAX HEIGHT (PARKING INCL)
Smaller than 2 000 m <sup>2</sup>	0,6	2 storeys
2 000 m <sup>2</sup> and larger	Erf size in m <sup>2</sup> divided by 2 500	One storey for every 1 000 m <sup>2</sup> of erf size or part thereof

### Hillcrest

The Hillcrest precinct displays certain qualities similar to that of the Core Area, such as a mix of retail, office and high density residential uses. The single residential component such as is found in the other peripheral areas like the Embassy and Hatfield-East precincts is however quite diminished. The precinct is also well-served with public transport routes, in particular the lines of the BRT that will be routed along Lynnwood Road and Duxbury Road. In addition, the precinct is very well located in relation to the university campus and therefore more dense development is proposed here compared to the Embassy and Hatfield-East precincts. Additional height may be attained by the provision of parking levels as parking is not included in the table for this precinct.

SIZE OF SITE ASSEMBLY	MAX FAR	MAX HEIGHT (PARKING NOT INCL)
Smaller than 2 000 m <sup>2</sup>	0,6	2 storeys
2 000 m <sup>2</sup> and larger	Erf size in m <sup>2</sup> divided by 1 500	One storey for every 750 m <sup>2</sup> of erf size or part thereof

### Provision of parking

In general, on-site parking at all developments should be provided in accordance with Table G of the town-planning scheme (TPS). However, substantially reduced parking requirements should be considered in the Core Area to encourage the use of public transport.

The HESDF prescribed a parking ratio of one parking space per living-unit plus one parking space per 4 living-units for visitors. These requirements have in certain instances been relaxed by waiving the provision of visitors' parking. Based on the proximity of developments to the Core Area (and therefore to the hub of the public transport facilities), reduction of the parking requirements for residential units to less than one parking bay per unit may be considered.

It may be noted that for a block of flats one parking bay per flat with three habitable rooms or less is required by Table G. By definition a block of flats consists of two or more dwelling-units and by definition a dwelling-unit may be occupied by a maximum of two unrelated persons (such as students). This requirement equates to 0,5 parking bays per single person and may therefore also be applied to living-unit developments, particularly in locations such as the Core Area, near the university campus and close to public transport stations.

### Provision of recreational space

Clause 14(3)(a) of the TPS requires the provision of an on-site children's playground at a ratio of 4 m<sup>2</sup> per dwelling-unit on the site. It has been suggested that this requirement should refer rather to an outdoor recreational area than to a children's playground. This amendment would be more applicable in an area such as Hatfield where many more single persons and students are accommodated (who incidentally also require recreational space) than traditional families with children. However, the prescribed ratio becomes somewhat problematic in the case of living-units which are occupied by a single person. By definition a dwelling-unit may be occupied by a maximum of two unrelated persons, which equates to a ratio of 2 m<sup>2</sup> of recreational space per person and this ratio may therefore be applied at developments consisting of living-units.

### Definitions

A living-unit is defined as "a habitable room which permits space for a single person to sleep, study and socialize and may include a kitchen and a bathroom or alternatively a communal kitchen and bathroom shall be provided for a number of adjacent living-units in the same building. A caretaker's flat shall be provided on the erf and shall at all times be



occupied by a caretaker/manager of the living-units on the erf". This definition is to be included in the revised TPS. The HESDF initially set a minimum size of 20 m<sup>2</sup> for a living-unit (kitchen and bathroom facilities excluded), but this requirement has been relaxed in many instances.

A caretaker's flat is already defined in the TPS. However, in the case of a development consisting solely of living-units, it is proposed that the following definition be used: "means a dwelling-unit for a person and his/her family who is responsible for the care and supervision of the other inhabitants, the land and the buildings on the erf. The name and contact details of the caretaker shall at all times be prominently displayed outside all entrances to the property. A proxy caretaker shall be appointed and his/her name and contact details shall also be displayed on every occasion that the caretaker is absent from the property for a period of more than 24 hours". The motivation for this definition is that unruly behaviour, particularly at night time, is occasionally experienced at student accommodations and that a measure of supervision is required for such inconsiderate behaviour.

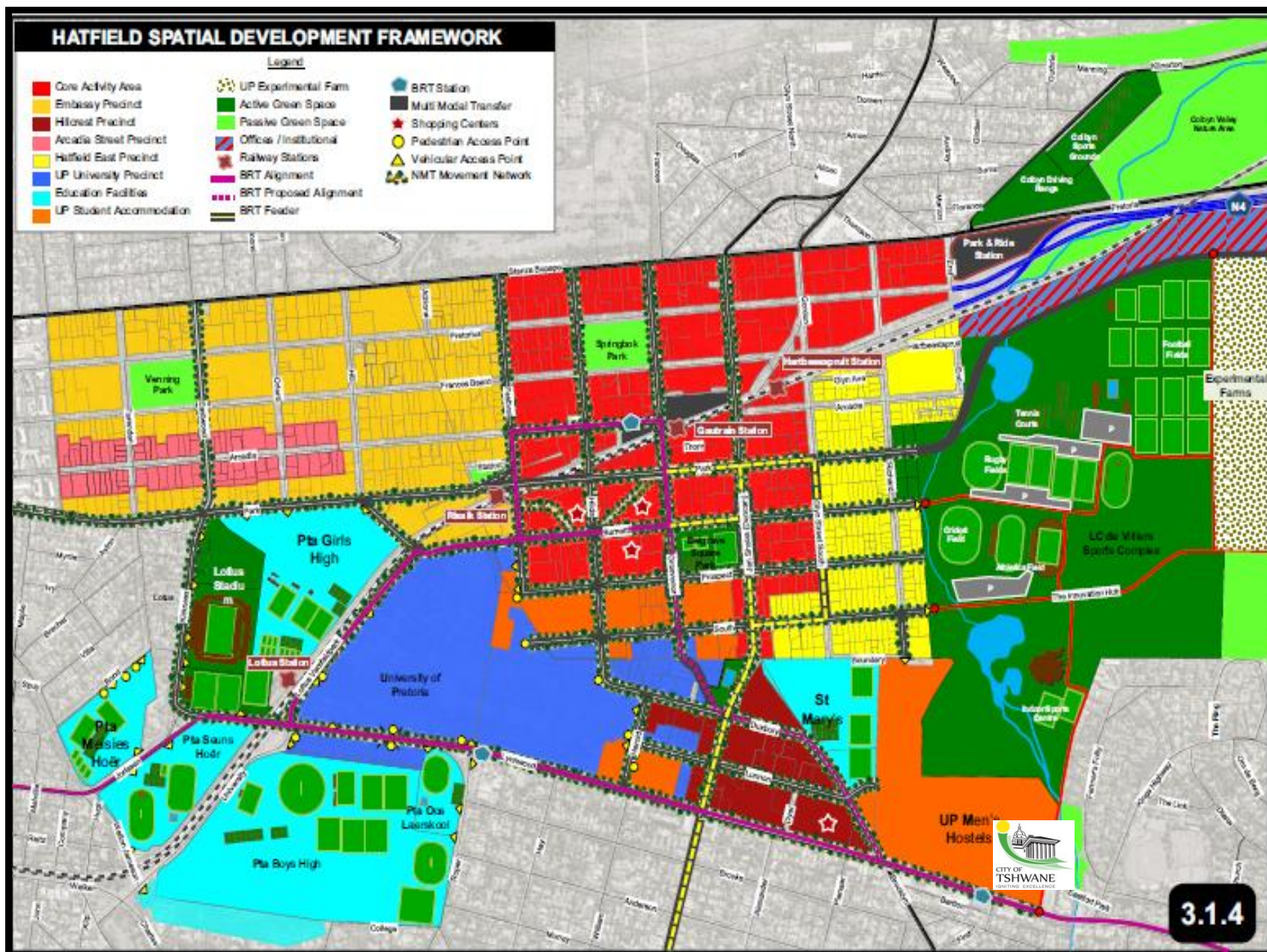
A new trend that has recently developed in the Hatfield-Arcadia East area is the development of comprehensive student housing establishments. This concept was born out of the pressing need for student accommodation which is being developed by the private sector, but managed by or on behalf of large educational institutions. Students are being housed in single or sometimes in double rooms, which have their own kitchen and bathroom facilities or alternatively with shared facilities. These establishments are required to have a Head of Residency dwelling-unit and may also include ancillary facilities, but no meals are provided as in the traditional hostels.

Unfortunately the concept of a student housing establishment does not fit any of the currently defined land-uses in the TPS and the following definition is therefore proposed: "means land and building consisting of habitable rooms for occupation by a single person/a maximum of two persons, each room either with its own or with shared kitchen and bathroom facilities, and it shall include a Head of Residency dwelling-unit and may in addition include ancillary and subservient uses such as administrative offices, a caretaker's flat, communal study and computer facilities, laundry facilities, cafeteria and gymnasium and other recreational

facilities for exclusive use by the employees and residents on the property".









### 5.1.8 DRAFT COLBYN DEVELOPMENT FRAMEWORK

A development framework has been formulated for the Colbyn area and should be used as a guide in development decisions. In broad, this framework makes provision for dwelling-house (low-scale) offices along the through routes of Stanza Bopape Street, Thomson Street and Gordon Avenue and diminishing residential densities approaching the Meintjiesrif ridge area along the northern edge of the township.

### 5.1.9 SAULSVILLE NODE

The Saulsville Node has been identified as a Metropolitan Urban Core and as such has a high status within the metropolitan spatial structure. The node is linked to public transport facilities such as rail and taxis. This node is linked with the Atteridgeville Station Node, to the east, and also to the Lucas Masterpieces Moripe Stadium, to the south; this linkage results in a triangular shape. These three anchor areas have huge potential for business opportunities. The Saulsville station, especially to the north-east of the station, has vacant land on which there is a proposal for a 20 000 square meters proposed neighbourhood centre on the corner of WF Nkomo Street and Tlou Street, and the area to the south of the Saulsville station has a potential for redevelopment and could also accommodate another small scale retail component.

The Lucas Masterpieces Moripe Stadium Nodal area is located at the core of Atteridgeville township, which makes it ideal for retail development. It also has anchors such as municipal offices, a police station and the Magistrates Court. Recently a small scale shopping centre has been developed, known as the Atteridgeville Retail Plaza development. It comprises a shopping centre of about 4 500 square meters. The Atteridgeville Station Nodal area is more of a sports and leisure nodal area. It is located close to a municipal resort to the north-west of the station and a proposed bird sanctuary directly to the north of the station. To the south of the station is a sports complex called Mbolekwa Sports Grounds, with a soccer field and a cricket pitch. There is also a possibility of introducing a small scale retail centre on the municipal owned land located on the corner of Sithole and Moroe Streets.

The Saulsville node is diverse and has huge potential for growth and expansion. However there is still a need for linking this node with the Lotus

Gardens via a pedestrian bridge over the N4, to the north of the node and also a need for another pedestrian link over the railway station between Saulsville township and the proposed neighborhood shopping centre, on the Corner of WF Nkomo Street and Tlou streets, in order to maximize on the area's potential pedestrian link.



### 5.1.10 MAXIMUM RESIDENTIAL DENSIFICATION FOR SPECIFIC SUBURBS

Where applicable, the proposed residential densities as contained in Schedules 11 to 14 of the Tshwane Town-Planning Scheme, 2008 (Revised 2014) are amended according to Paragraph 4.12.

### 5.1.11 INTEGRATED COMPACTION AND DENSIFICATION STRATEGY FOR PRETORIA WEST RESIDENTIAL PRECINCTS

This document was compiled in 2008 and approved by Council. The document was revised in 2011. Pretoria West is strategically located adjacent to the CBD and is experiencing strong development pressure to convert its historic residential function to other land-uses. The broad aim of the plan is to protect the residential character of the few remaining residential pockets in Pretoria West, while also providing guidelines for mixed land use development along the activity streets in the precinct, such as WF Nkomo Street, Vom Hagen Street, Rebecca Street, Charlotte Maxeke and Soutter Streets.

### 5.1.12 MENLYN NODE PLAN

Essentially, the node plan supports the goals and objectives of the RSDF. The plan makes provision for high density residential and mix use development on the western side of the N1. The SDF for the study area is based on a range of development objectives/principles that need to be achieved as part of the development of the study area in future.

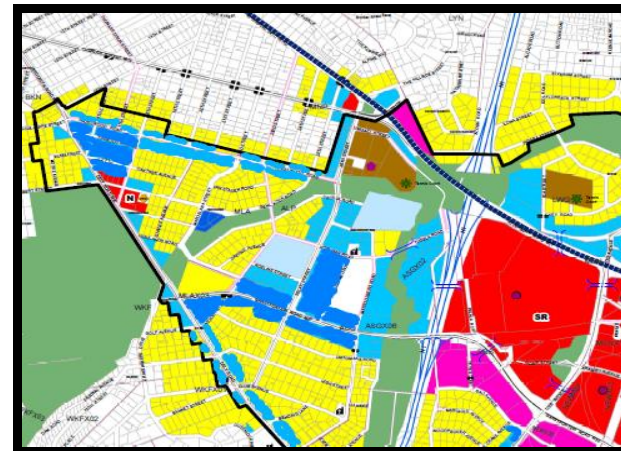
The framework serves to guide the development process in the study area in a logical, cost effective and sustainable manner – both in its local and in its regional context in order that the area develops in a sustainable manner. It is in this regard that the Menlyn Node and Surrounding Areas: Spatial Development Framework (MNSUDF) has as its function to:

- Allow for the expansion and intensification of economic, social and residential activities in the Menlyn Node in order for the node to develop into a fully-fledged Metropolitan Activity Node and Transport Orientated Development Node (See Chapter 4).
- Protect, enhance, and improve the functionality of the entire regional open space system in the area.
- Protect and expand the existing community facilities in the Menlyn Node and surrounds in order to serve the social needs of the current and future population residing in the area.
- Upgrade and maintain the movement network in the study area not only to facilitate the efficient movement of various public and private

modes of transport within the node, but also between the Menlyn Node and other activity nodes in the City of Tshwane and Gauteng Province.

- Enhance public transport facilities and services (bus, taxi, BRT and Gautrain feeder system) in and around the Menlyn Node, and provide for easy and safe pedestrian movement and access to these facilities.
- Alleviate the pressure for horizontal expansion of economic activities into surrounding residential areas by focusing on optimally utilising the vertical space available in the Menlyn Node.
- Promote residential redevelopment and densification around the Menlyn Node and create a natural buffer of high value (financial and social) residential development around the Menlyn Node in order to prevent the horizontal expansion of business activities, and to rather promote the vertical expansion of the node.
- Facilitate the sustainable development of the Menlyn Node by way of ensuring the incremental expansion and continuous maintenance of engineering services in the node and surrounding areas.

Densities in the Menlyn Node will be guided by the density as contained in Part 4 of this document and as indicated on the density maps of Regions 3 and 6. Height controls will be used as a principle and a guideline only.



## 5.2 REQUIRED PRECINCT PLANS (NON-PRIORITISED)

Other detail studies that apply to various sections of the region and which serve to inform development include:

- The Mandela Development Corridor Urban Design Framework (not yet approved);
- Marabastad Spatial Development Framework;
- The Salvokop Urban Design Framework;
- The Urban Development Zone guidelines as contained in a presentation of the Metropolitan Planning Section;
- The Atteridgeville Integrated Development Framework should be regarded as detail policy for considering land use development applications in this area;
- The Western Area of Pretoria West Spatial Development Framework, Plan Associates 2004, should be regarded as detail policy for considering land use development applications in this area.

### 5.3 PLANNING POLICY RATIONALISATION

Spatial Policy	Status	Approval Date	Purpose	Changes in planning Context	Proposed Future of Plan
Arcadia Street SDF	Approved	2002	Guidelines regarding development of Arcadia Street	Status Quo remains	To be retained
Andeon SDF	Approved	2009	Guidelines regarding the development of Andeon	Status Quo remains	To be retained
Atteridgeville and Lotus Gardens SDF	Approved	2010	Guidelines regarding the development of Atteridgeville and Lotus Gardens	Status Quo remains	To be retained
Hatfield East SDF	Approved	2003	Guidelines regarding the development of Hatfield East	Re-planning with Gautrain station and BRT influence	Withdrawn and replaced by 2013 RSDF – see Paragraph 5.1.7
Groenkloof SDF	Approved	2005	Guidelines regarding the development of Groenkloof	Principles of 2008 RSDF incorporated into 2012 RSDF	Withdrawn and replaced by 2013 RSDF – see Paragraph 5.1.5
Brooklyn Node SDF	Draft		Guidelines regarding the development of the Brooklyn node	Development in general	To be used as guideline
Colbyn Development Framework	Draft		Guidelines regarding the development of Colbyn	Status Quo remains	To be used as guideline
Hatfield Urban Development Framework	Draft		Guidelines regarding the development of the Hatfield node	Development in general	To be used as guideline
INTEGRATED DEVELOPMENT FRAMEWORK FOR DUNCAN STREET, LYNNWOOD ROAD, CHARLES STREET, ATTERBURY ROAD, GARSFONTEIN ROAD AND DUXBURY/ BROOKLYN/ DELY ROAD	Approved	2001	Densification & mixed use	Densification and Compaction Strategy to replace policy. BRT Planning and nodes and corridors strategy.	Withdrawn and replaced by RSDF 2013: See 4.5 and 4.6
Pretoria West Local Spatial Development Framework	Draft		Guidelines regarding the development of the Pretoria West	Development in general	To be used as guideline







## 6. REFERENCES

- Cities Network, **Developing a Collective approach to Mixed- Use Development in Transit – Oriented Development Precincts**, June 2016.
- City of Johannesburg, **Complete Streets**, April 2013.
- City of Tshwane, **Comprehensive Integrated Transport Plan 2015 - 2020**, June 2016.
- City of Tshwane, **Hatfield Draft Masterplan**, March 2014.
- City of Tshwane, **Hatfield Spatial Development Framework**, 2014.
- City of Tshwane, **Integrated Rapid Public Transport Strategy of the City of Tshwane**, November 2012.
- City of Tshwane, **Menlyn Spatial Development Framework**, 2012.
- City of Tshwane, **Rapid Transit (TRT): Spatial Development Policy: Density and Intensification Guidelines**, March 2014.
- City of Tshwane, **Saulsville Spatial Development Framework**, 2016.
- City of Tshwane, **Streetscape Design Guidelines**, August 2007.
- City of Tshwane, **Draft Streetscape Design Guidelines**, August 2013.
- City of Tshwane, **Tshwane MSDF 2012**, June 2012.
- City of Tshwane, **Tshwane RSDF 2013**, March 2014.
- City of Tshwane, **West Capital Spatial Development Framework**, 2014
- Gauteng Province, **Gauteng Spatial Development Framework**: 2011.
- Gauteng Province, **Gauteng 25 Year Integrated Transport master Plan** : November 2013
- Gauteng Province, **Biodiversity Plan** : 2015
- ITPD, **The Transit Orientated Development Standard**, New York, 2015.

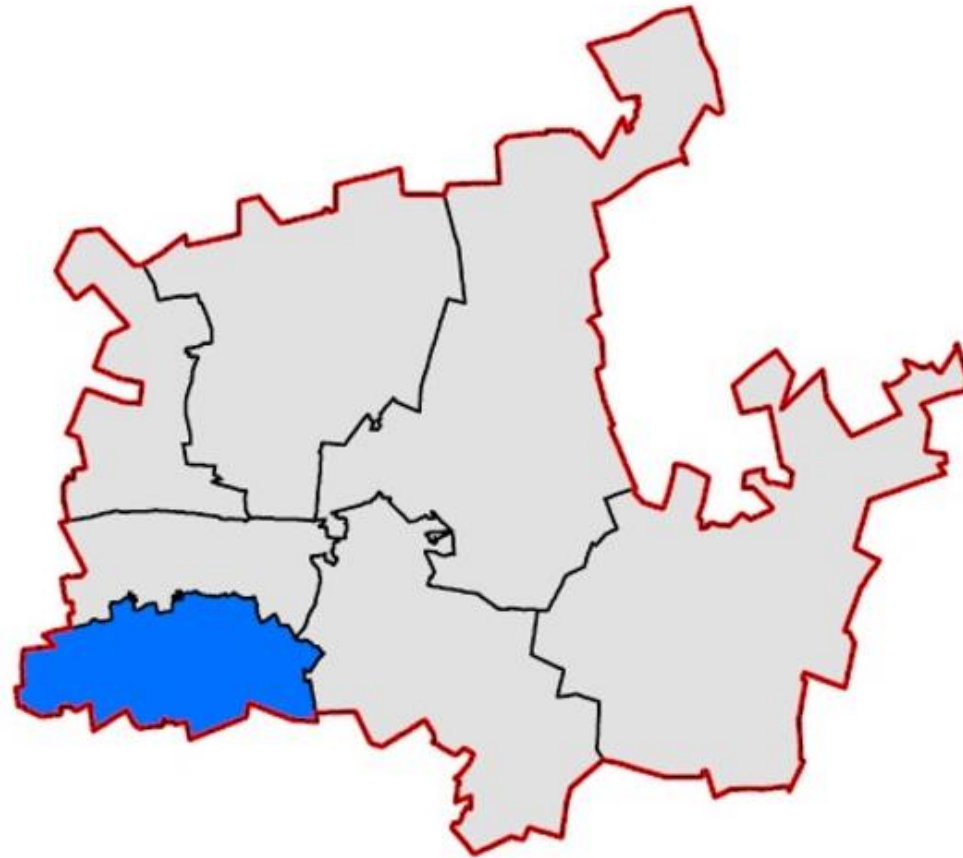
RSA, **National Development Plan: 2030**, National Planning Commission. 2013

RSA, **Spatial Planning and Land Use Management Act**, 16 of 2013.

RSA, **National Department of Agriculture, Norms and Standards for Land uses Change**: 2016

World Bank, **Transforming Cities with Transit: Transit and Land use Integration for Sustainable urban Development**, January 2013.

## SPATIAL DEVELOPMENT FRAMEWORK 2017: REGION 4



## TABLE OF CONTENTS

<b>ABBREVIATIONS</b>	i	<b>5.3 RURAL MANAGEMENT</b>	23
<b>GLOSSARY OF TERMS</b>	iv		
<b>PART ONE: INTRODUCTION</b>	1	<b>PART THREE: REGIONAL ANALYSIS</b>	
1.1 BACKGROUND	1	3.1 LOCALITY	26
1.2 LEGISLATIVE FRAMEWORK	1	3.2 AREA	26
1.3 APPROACH AND METHODOLOGY	2	3.3 DEMOGRAPHIC INFO	27
1.4 THE USE OF THIS DOCUMENT	2	3.4 REGIONAL CHARACTERISTICS	29
		3.5 STRUCTURING ELEMENTS	29
<b>PART TWO: METROPOLITAN CONTEXT</b>	4	3.6 ECONOMIC BASE	30
2.1 NATIONAL DEVELOPMENT PLAN; 2014	4	3.7 PHYSICAL ENVIRONMENT	28
2.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011	5	3.7.1 Natural Structuring Elements	31
2.3 GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013	6	3.7.2 Strategic Land Uses	31
2.4 THE SPATIAL VISION OF THE CITY	7	3.7.3 Nodes	31
2.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK	7	3.7.4 Mixed Use Activity Areas	31
2.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY	8	3.7.5 Residential Characteristics	31
2.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN	8	3.7.6 Movement and Transport Systems	32
3 THE CITY STRUCTURE	10	3.7.6.1 Road Network and Private Transport	32
3.1 HIERARCHY OF NODES	10	3.7.6.2 Public Transport	33
3.2 SPECIALISED ACTIVITY AREAS	12	3.7.7 Service Infrastructure	34
3.3 GROWTH MANAGEMENT	12	3.8 KEY ISSUES AND S.W.O.T ANALYSIS	35
3.4 URBAN EDGE	13	3.8.1 Strengths	35
3.5 TSHWANE RETAIL STRATEGY	13	3.8.2 Weaknesses	34
		3.8.3 Opportunities	36
4 MOVEMENT AND CONNECTIVITY	14	3.8.4 Threads	36
4.1 URBAN FORM AND TRANSPORT INTEGRATION	15	3.8.5 Role and Function	36
4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE IS:	16	3.8.6 Development trends within Region 4	36
4.3 ENVIRONMENTAL STRUCTURING CONCEPT	21	<b>PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK</b>	
		4.1 INTRODUCTION	38
5.1 HERITAGE AND CULTURAL SITES	21	4.2 METROPOLITAN NODES	38
5.2 OPEN SPACE AND CONSERVATION AREAS	21	4.2.1 Centurion Node	38
		4.3 REGIONAL NODES / LOCAL NODES	38
		4.4 JOB OPPORTUNITIES	45

4.4.1	Mixed Use Areas	45
4.4.2	Development Corridors	45
4.5	FUNCTIONAL ROAD CLASIFICATION AND ACTIVITY MATRIX	47
4.5.1	Development Guidelines	53
4.6	RESIDENTIAL	60
4.6.1	Concentration Zones	62
4.6.2	Linear Zones (Corridors and Spines)	63
4.6.3	Suburban Densification Zones	65
4.6.4	Low-Density Zones	66
4.6.5	Rural Divisions	66
4.6.6	Human Settlements	67
4.7	MOVEMENT SYSTEMS	69
4.7.1	RSDF movement System Proposals	69
4.7.1.1	Rail	70
4.7.1.2	Road network	70
4.7.1.3	Bus Rapid Transit (IRPTN System)	70
4.8	RURAL AREA	72
4.8.2	Urban Edge	73
4.8.3	Development Edge	73
4.8.4	Future Urban Development Areas	73
4.8.5	Management Zones	74
4.8.6	Agricultural High Potential Areas	74
4.8.7	Sensitive Protected Areas/Biodiversity Zone	75
4.8.8	Sensitive Ridge Areas	75
4.8.9	Heritage and Cultural Protected Areas	75
4.8.10	Tourism Potential Places/Areas	75
4.8.11	Conservancies	75
4.8.12	Game and Nature Reserves	76
4.8.13	Mines and Places of Manufacturing	76
4.8.14	Human Settlements	76
4.8.15	Community Service Centres	77
4.9	OPEN SPACE AND ENVIRONMENTAL AREAS	79
4.10	SOCIAL FACILITY PLANNING	85

## PART FIVE: DETAIL PRECINCT PLANS

5.1	EXISTING PRECINCT PLANS	87
5.1.1	Centurion Node Plan	87
5.1.2	Irene Node	90
5.1.3	Monavoni Emerging Node	93
5.1.4	Olievenhoutbos Urban Development FRamework	95
5.2	PLANNING POLICY RATIONALISATION	96

PART SIX: REFERENCE	98
---------------------	----

BRT

- Bus Rapid Transit

CBD

- Central Business District

COT

- City of Tshwane

EMF

- Environmental Management Framework

GLA

- Gross Leasable Area

GSDF

- Gauteng Spatial Development Framework

GITP

- Gauteng 25-Year Integrated Transport Master Plan

IDF

- Integrated Development Framework

IDP

- Integrated Development Plan

ITP

- Integrated Transport Plan

LSDF

- Local Spatial Development framework

MSDF

- Metropolitan Spatial Development Framework

NDF

National Development Plan, Vision for 2030.

NMT

- Non Motorized Transport

UP

- University of Pretoria

RSDF

- Regional Spatial Development Framework

SDF

- Spatial Development Framework

SPLUMA

- Spatial Planning and Land Use Management Act, 16 of 2013.

SPTN

- Strategic Public Transport Network

TOSF

- Tshwane Open Space Framework

ZOC

- As per CDS: Zone of Choice



**ACTIVITY NODES**

- Areas of concentration of mixed land uses.

**ACTIVITY SPINES**

- Mobility routes connect a number of nodes or mixed use areas, serving as the main public transport channels of the region. These routes could support linear development although not necessarily continuous along its length. Higher order land uses should be accommodated in the nodes, but lower order land uses could develop in a linear fashion subject to alternative access opportunities. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes.

**ACTIVITY STREETS**

- Local collector roads supporting lower order land uses in a linear fashion along its length. Direct access to land uses is provided compromising mobility for activity. Development along activity streets should be permitted in accordance with a local spatial development framework.

**CAPITAL CORE**

- The Tshwane Inner city is identified as the Capital Core as it is the city's first order node amongst all metropolitan nodes. Traditionally, the inner city is also the Central Business District (CBD) of major cities. Tshwane is no different.
- Historically, the inner city was the geographic heart and centre(CBD) of what is now the Tshwane area. Over time, though, due to the extension of the Tshwane boundaries, the Inner City is no longer geographically central, but still plays a very important role with regards to the concentration of retail, office and government buildings to be found in the area.
- The Capital Core must:
  - Be the focal point for housing government departments
  - Be developed to a higher than average density, supporting all principles of smart growth.

**CITY OF TSHWANE METROPOLITAN MUNICIPALITY LAND USE MANAGEMENT BY –LAW**

- To give effect to “Municipal Planning” as contemplated in the Constitution of the Republic of South Africa, 1996, and in so doing to lay down and consolidate processes and procedures, to facilitate and make arrangements for the implementation of land development and land development applications, spatial planning and a Land Use Scheme within the jurisdiction of the City of Tshwane, in line with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013), to provide for the processes and procedures of a Municipal Planning and Appeals Tribunal and to provide for matters incidental thereto.

**COMPACT**

- Compact urban form increases efficiency in the way people can use the city and in the way the city is managed. More people live in a smaller area in a compact city and this higher density allows for efficient provision of public transport, social and other services. The opposite of a compact city is urban sprawl.

**CONCENTRATION ZONES**

- The Concentration Zones are the primary focus areas for high density, medium to high-rise residential developments and are centred surrounding nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

**COT**

- City of Tshwane.

**DENSIFICATION**

- Increase of residential density following the guidelines of the Densification and Compaction Strategy, May 2005.

## EMERGING NODES

- Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

## INDUSTRIAL

- As referred to on the framework plans includes: light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

## INFILL

- The development of undeveloped or underdeveloped land within a developed urban area with infrastructure available.

## INNER CITY

- An area in the City of Tshwane comprising the Pretoria Central Business District and surrounding residential areas.

## INTENSIFICATION

- The process of intensifying activities or land use by increasing floor area, height or number of activities.

## LIVABLE STREETS

- Liveable Streets are defined as streets for everyone that are planned, designed, and operated to enable a network of safe access for all users including pedestrians, bicyclists, and transit riders

## LINEAR ZONES

- As per Densification and Compaction Strategy referring to activity spines and linear channels forming a lattice of movement.

## LOWER ORDER LAND USES

- Land uses that are not usually associated with high impact on the surrounding environment and with low traffic generating characteristics.

## METROPOLITAN NODES

- These are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the Tshwane context, Metropolitan nodes are those nodes within the City (economically) benefiting primarily from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment.
- Such localities are also where the most extensive land use rights, including densities, are likely to be supported, in line with the growth management strategy.

## MIXED USE

- Refers to land uses such as offices/ commercial/ residential/ industrial/ retail/ entertainment/ institutional ect. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. A mixed-use could refer to retail at street level, institutional on the floor above and residential on the upper floors, or only use per erf. Principles regarding retail, commercial and industrial uses/ rights are still applicable as indicated in this document. Mixed land use in an industrial area could include industry, commercial and retail uses.

## NODES

- A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport nodes such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use

development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

#### PUBLIC TRANSPORT FACILITIES

- Including train stations, taxi and bus facilities with ancillary uses.

#### SPLUMA

- Spatial Planning and Land Use Management Act, 16 of 2013.

#### SUBURBAN DENSIFICATION

- As per Densification and Compaction Strategy: Residential densification in areas that are not located in concentration zones of along linear development spines.

#### SUSTAINABLE DEVELOPMENT

- Development that has integrated social, economic and environmental factors into planning, implementation and decision-making, so as to ensure that it serves present and future generations (In terms of SPLUMA Objectives).

#### SUSTAINABLE HUMAN SETTLEMENTS

- The term 'sustainable human settlement' refers to a spatial concept that has two areas of emphasis: 1) human 2) sustainable. In terms of SPLUMA Principles) "The human-centred approach emphasises that a central purpose of planning is to ensure that the developmental needs and activities of people living in settlements are catered for and, in particular, that Opportunities for people to achieve their full potential are maximised through their own efforts. This approach, rather than being purely cost- or technology-driven, is people-driven and democratic". It makes such settlements socially, politically and economically sustainable. But there is also the dimension of environmental sustainability.

#### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)

- Transit-oriented development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD

neighbourhood typically has a centre with a transit station or stop (train station, metro station, tram stop, or bus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs generally are located within a radius of (500 to 900 m) from a transit stop, as this is considered to be an appropriate scale for pedestrians.

#### TRANSPORT CORRIDORS

- For the purpose of this RSDF the routes are defined as the approved BRT routes within Region 4 They are regarded as the main public transport channels of the region. Public –transport orientated – with the prioritising of public transport and Non – Motorised Transport over Private transport. Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.

#### URBAN CORES

- Former township areas were developed as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme Grant (NDPG) is a nationally funded programme that aims to address the improved quality of environment in urban cores.

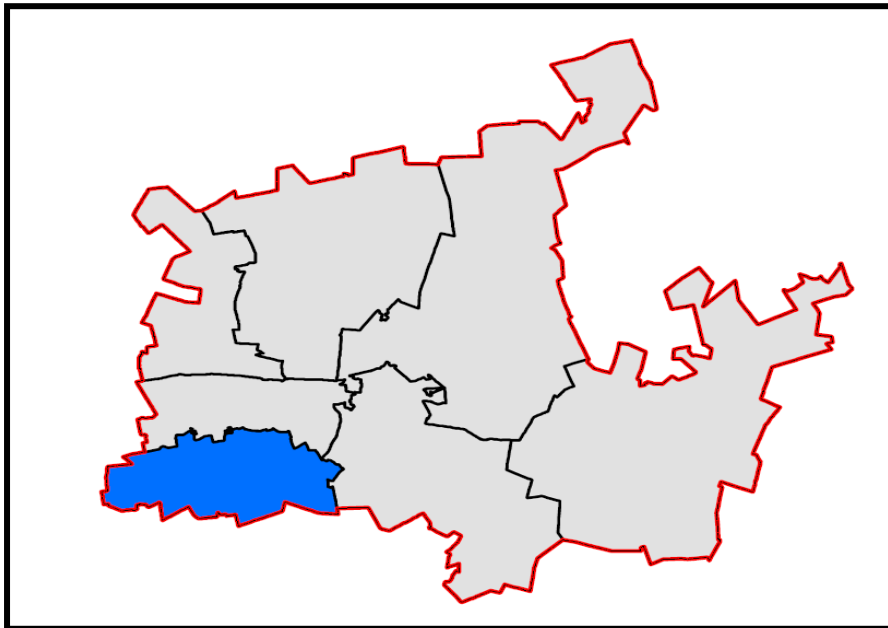
## 1. INTRODUCTION

### 1.1 BACKGROUND

The City of Tshwane (COT) embarked on processes to compile seven Regional Spatial Development Frameworks (RSDF's) for the administrative planning regions of the metropolitan area in 2011.

The RSDF's needed to be inter-linked and also support the Tshwane Metropolitan Spatial Development Framework (MSDF) of 2017 as well as the Tshwane City Development Strategy (CDS), Tshwane Densification and Compaction Strategy (2005), and Tshwane Open Space Framework.

The RSDF for Region 4 was therefore prepared within the context of the MSDF, the City Development Strategy and in support of the other RSDF's.



### 1.2 LEGISLATIVE FRAMEWORK

- The Municipal Systems Act, 2000 (Act 32 of 2000) determines that a municipality must adopt a framework for integrated development in its area in the form of an Integrated Development Plan (IDP) (Section 27).
- A Spatial Development Framework, which guides and informs all development forms part of the IDP (Section 35 (2)).
- The Gauteng Planning and Development Act, 2003 (Act 3 of 2003) determines that municipalities must formulate spatial development frameworks for their areas (Section 31 and 32).
- The content of these plans "shall be in the form of maps or a map together with explanatory report of the desired spatial form of the municipality".

A Spatial Development Framework must:

- Indicate where public and private development infrastructure investment should take place.
- Indicate desired development and land use patterns for different areas.
- Indicate where development of particular land uses should be discouraged or restricted.
- Provide broad indication of the areas where priority spending should take place.
- Shall provide guidelines for development and land use decision-making by the municipality.

This Regional Spatial Development Framework was prepared in accordance with the above mentioned provisions.

### 1.3 APPROACH AND METHODOLOGY

The approach to the preparation of the RSDF was based on the following approved policies and plans:

- National Development Plan, 2014
- Gauteng Spatial Development Framework, 2011.
- Gauteng 25- Year integrated Transport Master Plan, 2013
- The MSDF objectives, vision and supporting strategies as well as development issues were used to inform the role and function of the region. (MSDF 2017).
- City of Tshwane, Rapid Transit (TRT), Spatial Development Policy: Density and Intensification Guidelines, 2014 .
- The City of Tshwane Comprehensive Integrated Transport Plan, 2016
- The City of Tshwane Bioregional Plan, 2016.

The framework was also based on best practices applied internationally on the development of MSDF/ RSDF. See references used at the end of the document in the compilation of the framework. Further this framework has been compiled inter alia in terms of the relevant provincial legislation and the Spatial Planning and Land Use Management Act, 16 of 2013.

The RSDF for Region 4, 2017 was prepared in accordance with the following mentioned principles:

- Indicate where densification should take place and promote economic and social inclusion. (SPLUMA , Objectives and Principles 7(a))
- Indicate how urban regeneration should take place in the Region in order to stimulate land markets (SPLUMA, Objectives and Principles 7(a)).
- Indicate where public and private development infrastructure investment should take place. (SPLUMA , Objectives and Principles 7(a))
- Indicate desired development and land use patterns in the Region 4 in order to achieve mixed income housing, community, educational and job opportunities that support the Bus Rapid Transit system. SPLUMA , Objectives and Principles 7(a))
- Provide for the opportunity to walk and cycle in the Region and depart from car orientated planning.

- Provide broad indication of the areas where priority spending should take place in the Region and what the impact on services will be. (SPLUMA , Objectives and Principles 7(a))
- Shall provide guidelines for development and land use decision-making by the municipality in the Region 4.

This framework obtains its guidelines, objectives and principles from the relevant National, Provincial and Local Planning Policies as prescribed by the Spatial Planning and Land Use Management Act, 16 of 2013. In the following section the different policies and guidelines are discussed that are applicable to corridor planning.

### 1.4 THE USE OF THIS DOCUMENT

As a point of departure in terms of the governance model adopted by Council, it should be understood that no decision on site specific development application can have the effect of materially amending the RSDF's or undermine the IDP with reference to section 35 of the MSA.

The burden on a local authority in the preparation of the IDP and the SDF's with regard to public participation limits the power of a local authority to, without proper consideration amend, undermine or redirect policy. The citizenry within the jurisdiction of the City of Tshwane has the right to be able to rely on the content of the IDP and SDF's and any amendment thereto should not be taken lightly.

In particular, no development proposal may undermine the budgetary provisions contained in the IDP- read with the SDF. Should such development proposals have merit, they should be tested against the overall objectives of the policy documentation and formally incorporated to ensure integrated, funded and sustainable development takes place, that reach the objectives set out in the policy documents. The RSDF's indicate where and how discretionary powers are granted to deal with applications on merit. A merit deviation should be based on specific criteria or threshold requirements, which requirements shall in the sole opinion of the local authority, be complied with, in order to deviate or amend the RSDF or any component thereof. Keeping in mind that if it is so material as to impact on the overall objectives of the SDF's or IDP, that it can only be formally amended by the legislative body of Council, with public participation.



## MAPS AND PRINCIPLES

The different principles as indicated in Chapter 4 must be interpreted per Map and against the principles as specified in the document. For Example density applications will be evaluated according to the density map and accompanying principles as specified in chapter 4. Alternative land uses and activities will be evaluated according to the movement and activity map and accompanying principles. The composite map at the end of the document must only be regarded as a schematic representation of the principles.

## INFRASTRUCTURE

Development proposals, whether in line with these documents or on merit, should only be supported if infrastructure to the satisfaction of the local authority can be provided in line with the overall IDP. This should include the provision of infrastructure by developers that may have an impact on the operational budget of Council. The availability of infrastructure shall not be regarded as sufficient support for a development proposal. The prioritisation and provision of infrastructure is within the sole discretion of the local authority and shall be considered and evaluated based on accumulative impact and prioritisation of resources.

## TRANSITIONAL ARRANGEMENTS

In order for the City of Tshwane to ensure that pending applications that were submitted in line with the rescinded MSDF/ SDF's or RSDF's to be substituted by the reviewed MSDF and RSDF's, to be effectively and efficiently evaluated against policy the following transitional measures shall apply:

Any development application which relied on the provisions of the MSDF's or RSDF's in support of consideration of the said applications, that are pending before the City of Tshwane at the time of the adoption by Council of the reviewed MSDF's and RSDF's, shall be dealt with as if these revised documents have not been adopted.

These pending development applications shall be finalised based on the policy provisions contained in the rescinded MSDF's and RSDF's or any

component of these documents; provided that where applications are pending before the local authority and the reviewed MSDF's and RSDF's are in support of an application that the local authority in their sole discretion and interpretation of whether in support or not, the application may be considered against the reviewed MSDF's and RSDF's. This provision shall not be applicable if the application by evaluation against the reviewed MSDF's and RSDF's shall have the result of negatively impacting on the rights of an applicant.

The RSDF is not the sole mechanism in determining the suitability of any potential change in land use, but should be used in conjunction with requirements as may be determined by infrastructure and other relevant aspects that may not be contained in the RSDF.



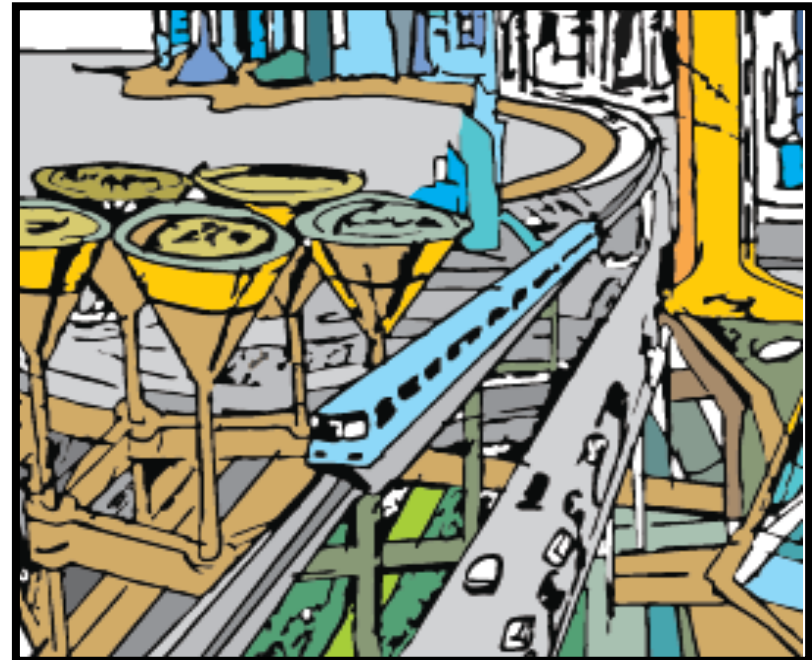
## 2. PART 2: METROPOLITAN CONTEXT

### 2.1 NATIONAL DEVELOPMENT PLAN: VISION FOR 2030: 2014

The overarching principles for spatial development in terms of the National Development Plan (pg. 246) is that all spatial development should conform to the following principles:

- **Spatial justice** – Unfair allocation of public resources between areas must be reversed and the confining of particular groups to limited space must be abandoned. The **increasing of urban population density** while improving the liveability of the cities, providing affordable public transport, it is seen as a complementary strategies to this principle (pg. 16). Transportation networks are seen as the key to spatial transformation (pg.238) and the accommodation of diverse household types is encouraged. (pg. 254).
- **Spatial sustainability** – Sustainable patterns of consumption and production must be supported and ways found for living that does not damage the natural environment. **Walkable neighbourhoods**, for example, reduce the need to travel and limit greenhouse gas emissions. In terms of this principle a clear strategy for densification of cities through land use-use planning is proposed (pg. 33).
- **Spatial resilience** – Reduce the vulnerability to environmental degradation, resource scarcity and climate shocks. Ecological systems should be protected and replenished and support the transition to environmental sustainability (pg. 256)
- **Spatial quality** – The aesthetic and functional features of housing and the built environment need to be improved to create **more liveable, vibrant and valued places**. Prioritising public transport and the **discouragement of private car** users is seen as one of the strategies in terms of this principle (pg.164).

- **Spatial efficiency** – Productive activity and **job creation must be supported**. Efficient commuting patterns and circulation of goods and services must be encouraged. Further procedures must not impose unnecessary costs on development. Unlocking development potential is seen as part of the spatial vision of the development plan (pg. 247)



## 2.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011.

**G2055** initiative is an initiative aimed at preparing the Gauteng City Region for a population of approximately 28 million people by 2055. The G2055 vision is for Gauteng to have a strong knowledge capital, be the hub of innovation to Africa, and be a liveable, prosperous, competitive, equitable, accessible and sustainable City region. The initiative is spatially addressed in the Gauteng Spatial Development Framework (approved in February 2011).

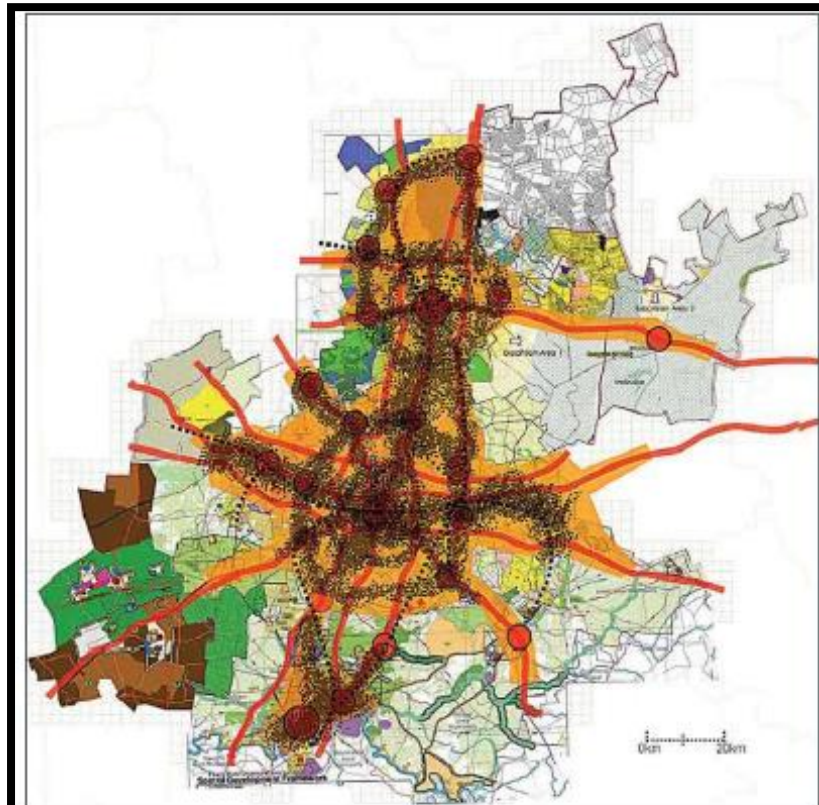


Figure 2-17: Proposed consolidation of urban development in Gauteng Province

Source: Gauteng Spatial Development Framework: 2011

The Gauteng Spatial Development Framework (GSDF) provides a common future spatial structure for the Gauteng Province and is clear on the fact that growth must be structured and directed (pg. 10).

The primary structuring elements identified within the GSDF are those of:

- urban mixed-use activity nodes
- open space and green system
- public transit and movement routes
- urban corridors and activity spines

Given the comprehensive system of discernible urban corridors and public transport potential within Gauteng, consolidation of **urban development should be concentrated around existing primary urban centres, urban nodes, and urban corridors** and along urban activity spines. (pg.52)

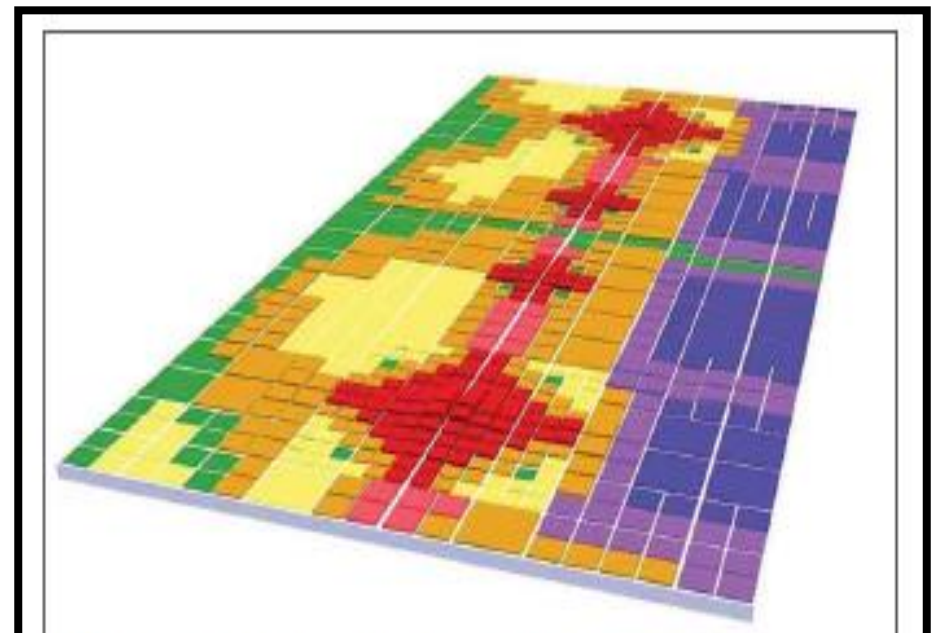


Figure A.2.7: Perspective model of a section of corridor

Source: Gauteng Spatial Development Framework: 2011

In terms of corridor development the GSDF seeks to achieve the following:

- The containment of urban sprawl by way of growth management that seeks to advance compaction, **residential densification**, and in-fill development, and mixed land uses within the existing urban fabric will promote walking and cycling (pg. 65).
- the social and **economic integration** of disadvantaged communities into the urban system, particularly those on the urban periphery;
- the establishment of a hierarchy of nodes coupled with the improvement of **linkages and connectivity** between these nodes and areas of economic opportunity (pg. 86);
- **land use-public transport integration** through nodal and corridor development (pg.96)
- the promotion of viable public transport systems and **reduction of reliance on private mobility** with strong emphasis on **densification along the priority public transport routes**, especially rail and BRT routes which form the basis of the IRPTN movement system (pg. 83);
- public transport routes become the priority areas for **densification** and infill development;

Evident from these principles is the strong emphasis on public transport becoming the basis of the 'Movement system' in the province, and urban corridors, activity spines and public transport routes. Creating the framework for future processes of **densification** and intensification, including Transit Oriented Development (TOD) comprising mixed uses around road and rail based public transport facilities (pg. 136).

### 2.3. GAUTENG PROVINCE, GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013

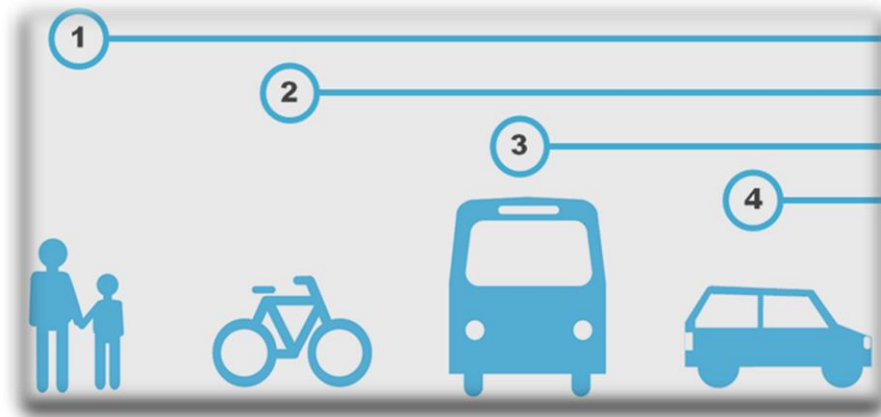
The plan proposes a radical paradigm shift in spatial and transport planning. It serves as a point of departure from apartheid spatial planning, land use and mobility patterns and ushers in an innovative way of structuring our future societal development. It serves as a road map for more detailed planning, particularly in public transport, land use, human resource development and socio-economic development. It is underpinned by founding principles such as economic beneficiation; doing things in a smart and sustainable manner; and integrating transport networks, modes and services interventions" have been identified of which the following two clusters relate to BRT corridor planning (pg.23)

- Land Use Development  
Subsidised housing provision within urban core areas  
Land use densification in support of public transport;
- Strategic Public Transport Network  
Mainstreaming non-motorised transport (NMT)  
Reinforcing passenger rail network as the backbone of the system  
Extending the integrated rapid and road-based public transport networks

The promotion of NMT as part of a sustainable transport system, e.g. include NMT (walking and cycling) as a feeder system to all public transport systems. Redesigning and/ or creating a built environment (urban and rural) to inclusively accommodate NMT users according to universal design principles as may be appropriate in terms of social and economic objectives (pg.71).



**Diagrammatic representation of the modal hierarchy approach depicting an operational Category that favours the NMT modes**



Source: Gauteng 25 Year integrated Transport master Plan: 2013

Extensive land use densification and more efficient land use and transportation integration around the provincial public transport network will make a significant contribution towards enhancing the viability of public transport in the province. This would require large scale processes of infill development, densification and redevelopment of older urban areas in the province and the containment of urban sprawl by way of a comprehensive urban development boundary for the Gauteng City Region. Developing spatial compacts which promote processes of densification, intensification and infill development within the existing urban footprint of towns and cities. (pg. 136).

Municipalities should seek to achieve the following density guidelines in various functional areas:

- High Density: 80 units per hectare and higher within 1 kilometre from the provincial IRPTN network and activity nodes served by this network;

In terms of the Provincial Transport Master Plan all municipalities in Gauteng should identifying priority nodes/ areas along these corridors and **compile detailed Precinct Plans** for these areas (pg.32). The plan should be based on the following:

- Promote processes of densification and infill development.
- Reserving a percentage of spare bulk engineering services capacity to accommodate development along priority public transport corridors.
- Relaxing parking requirements for higher density developments along public transport Corridors.
- Facilitating and promoting non-motorised transport within the priority public corridor development areas by way of dedicated pedestrian and cycling lanes.
- Charging users for parking directly as opposed to hiding the true cost of parking in increased rent or tax subsidies.
- Improving public transport infrastructure significantly and subsidizing public transport costs.
- Road space reallocation aiming to re-balance provision between private cars and more sustainable modes of transport.

## 2.4 THE SPATIAL VISION OF THE CITY

The Spatial Vision of the City of Tshwane is to conduct integrated planning, maximising on spatial efficiencies for optimal service delivery.

- A Spatially Efficient Capital City that is Sustainable, Competitive and Resilient:
- Sustainability: Optimising the use of land through densification, infill and consolidation, resulting in a city with spatially integrated equal opportunities, correcting spatial imbalances, creating sustainable settlements and advancing social equity.

- Competitiveness: Instilling investor confidence by ensuring a well-managed quality built environment through enforcement of relevant legislation, maintenance and management of infrastructure and strategic investment in infrastructure focus areas targeting broad-based economic growth.
- Resilience: Being innovative and adaptable, whilst maximizing spatial opportunities and in turn maximizing economic growth opportunities through strategic investment decisions.

## 2.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK. (2017)

The MSDF represents the spatial interpretation of desired growth and development directions for the City. It spatially focuses economic and infrastructure development and gives spatial expression to the development plans above (CDS and IDP), both for the long-term and the medium term. The purpose of a metropolitan spatial framework for the city is to provide a spatial representation of the city vision and to be a tool to integrate all aspects of spatial (physical) planning such as land use planning; planning for pedestrian movement vehicular and other movement patterns; planning regarding buildings and built-up areas; planning of open space systems; planning of roads and other service infrastructure; as well as to guide all decision-making processes regarding spatial (physical) development.

It is the intention of the MSDF to restructure our fragmented, inequitable and inefficient urban form to create a more equitable, efficient and environmentally and financially sustainable urban dispensation in line with current legislation and policy.

The compaction and functional integration of the city are normative directives from national level, and implies:

- higher density urban development,
- greater mixing of compatible land uses and
- focused concentration of high-density residential land uses and intensification of non-residential land uses in nodes, around transit stations (such as the Gautrain, BRT, Rail and other formalised intermodal transport facilities).

## 2.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY (APPROVED 21 NOVEMBER 2012)

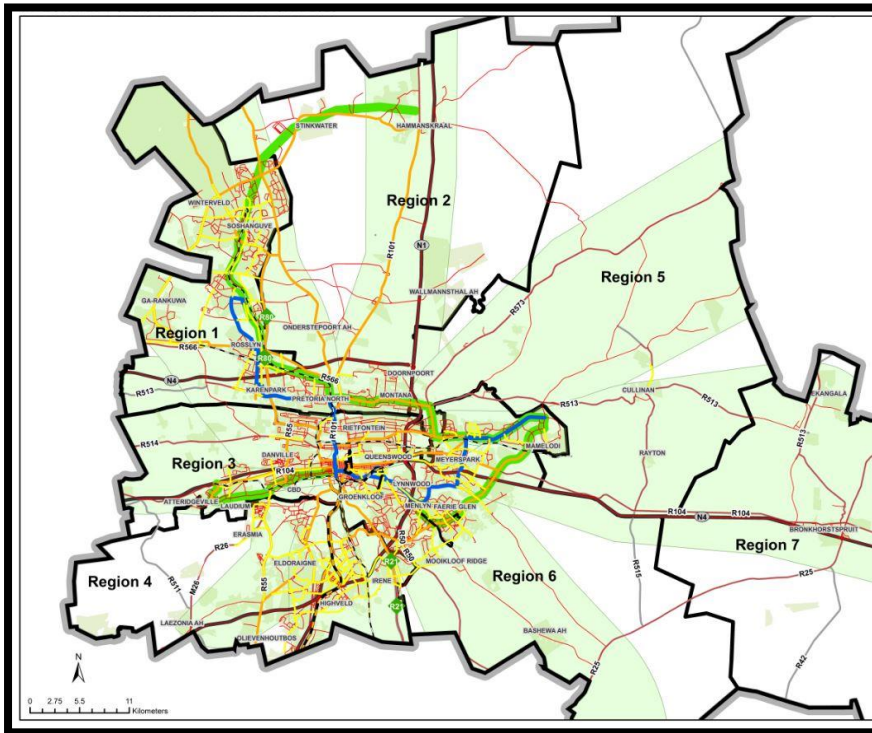
The purpose of the Policy is to provide the City with Operational guidelines for the IRPTN network. The document also provides guidelines in terms of the preparation of planning for IRPTN corridors. The key characteristics of strategy include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 500 - 900 metres of a transit station
- Reduced parking ratios for private cars.

## 2.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN (CITP) (APPROVED 6 JUNE 2016)

The Comprehensive Integrated Transport Plan set out the transport goals and objectives for the City that are aligned with the City's mission and are the targets which the City aims to achieve:

- Plan and develop a transport system that improves accessibility and mobility whilst **enhancing social inclusion**;
- Provide a fully integrated public transport system;
- Develop a transport system that drives economic development;
- Improve the safety and security of the transport system;
- Develop a transport system that reflects the image of the city;
- Develop an efficient, effective, development orientated public transport system and **integrates land use and public transport plans**;
- Develop a transport system that is environmentally sustainable.



The CIP is built on the following five key pillars. A few policies and strategies are provided for each pillar as a means of illustration:

- I. Sustainable transport:
  - Provide a transport system with low negative environmental costs yet high positive social value, which supports resource efficient economic development.
- II. Public-transport orientated:
  - **Prioritising public transport and Non-Motorised Transport (walking and cycling) over private transport;**
  - Provide public transport access to all residents, including tourists and visitors

- **Landuse to support and promote public transport** e.g linking economic nodes with public transport, **increase land-use densities along routes** and around modal transfer facilities.
- III. Integrated transport:
    - Integration of land-use with transport, e.g. **densification along public transport corridors;**
    - Integrated planning and implementation between City of Tshwane departments, as well as between the City and other national and provincial authorities.
  - IV. Transport in support of a Smart City:
    - Affordability and accessibility of technology e.g. use of electronic communication connections for transport, safety and security (urban traffic control, passenger information, CCTV cameras, etc.);
    - Being “smart” by using scarce resources more effectively and through the application of suitable technology e.g. automatic fare collection using smart cards;
    - Provide modern public transport modes e.g. BRT, LRT, Gautrain.
  - V. People-friendly:
    - **Social inclusion, with an emphasis on access**, through the availability of public transport, to opportunities and services;
    - Provide affordable, easy to use, safe and secure public transport, including universal access and **facilities for walking and cycling.**





The key issue is that nodes within the city do not compete but complement and support each other so that the synergies between them maximise the potential of the City as a whole.

An important distinction is made between four nodal typologies i.e.

**Metropolitan Nodes / TOD** - these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/ provincial relevance. In the context of Tshwane, Metropolitan nodes are those nodes within the City benefiting from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the range of growth, provide infrastructure in line with the growth management plan and maintain the urban environment. Such localities are also where the most extensive land use rights, including densities, are likely to be supported, also in line with the growth management strategy.

**Urban Cores**- former townships areas were as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme (NDPG) is a lead City programme and the main instrument 'township renewal'. Zithobeni, Ekangala and Refilwe are presented as Urban Cores.

**Emerging nodes**- over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the *potential* for greater development is clear. Identifying future urban areas also

provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Cullinan is presented as Emerging nodes.

### 3.2 SPECIALISED ACTIVITY AREAS

There are nodes in the metropolitan area that are characterised by largely mono-functional land uses taking up large, concentrated and defined space. The character of the areas ranges from industrial to high technology smart industries, medical facilities, educational, research and conservation facilities. It is important to acknowledge these specialised activity areas not just in terms of their scale, but because of their sphere of influence in terms of generating movement, opportunities and linkages with other areas. These linkages do not only refer to physical linkages, but also to "connectivity" in a broader sense, such as between institutions of learning and research.

The Blue IQ initiative of the Gauteng Provincial government contributes significantly towards the specialised activity areas in Tshwane. Blue IQ aims to deliver strategic economic infrastructure to catalyse sustainable economic growth and to indirectly contribute to job creation; to influence the composition of exports, and influence the diversification of Gauteng's GGP. The Blue IQ initiative focuses on four growth areas:

- Business
- High value-added Manufacturing (high value-add)
- Logistics
- Information and Communication Technology (ICT)
- Tourism and conservation

### 3.3 GROWTH MANAGEMENT

Growth management is a spatial concept that encompasses all aspects that ensure efficient, optimal and sustainable development of the physical environment. A key principle of this concept is smart growth. The smart growth principle guides development such that resources and services are provided in such a manner that they meet the demands of the affected population over a long-term period.

The role of nodes within the growth management concept is key. Nodes are those parts of the city where development should be focused. The widest variety of services and opportunities should be provided at nodal points, at degrees relative to their nodal status. The costs of urban sprawl and associated low densities are undeniable. Due to the limitation that development can be subjected to through the inability to provide bulk infrastructure, it is imperative that available infrastructure within the nodes are used optimally. This requires densification and intensification of land uses through compaction and infill developments. The maximisation of urban management within the nodes requires that these areas are specifically delineated within the greater developable areas for optimal growth.

The Compaction and Densification Strategy that was approved by the Council contains proposals for densification of the metropolitan area, which have local implications for each of the planning regions. The interpretation of the densification strategy for every region required special attention in the preparation of the RSDF 2017.

The strategy contains proposals for four key density zones:

- Concentration zones (high density / transit zones).
- Linear Zones i.e. corridors and spines (medium density).
- Suburban Densification (low to medium densities).

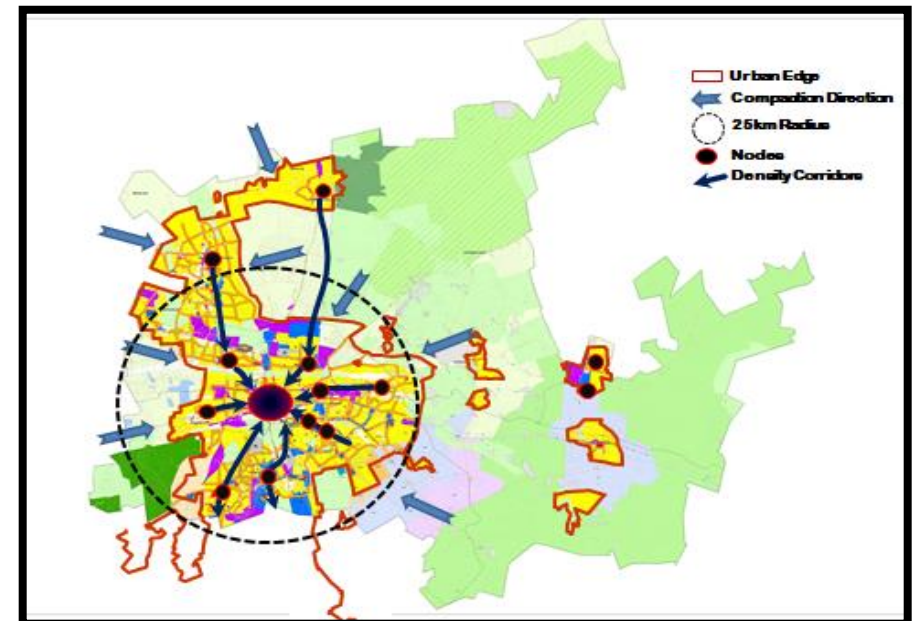
Densification and infill are sound urban development principles to pursue, but caution should be issued that most existing developed areas were not planned to accommodate higher densities and that in general the present road infrastructure cannot accommodate the additional traffic that densification implies. Densification should therefore be approached

holistically striving to also support a better public transportation system as a dual development process.

Densification is necessary for a number of reasons but most importantly it should support the provision of all urban services as best as possible.

Looking at the city from a metropolitan perspective ideally, areas with higher densities should be in the following localities:

- As close as possible to the CBD.
- Close to metropolitan core areas and services.
- In the proximity of areas with job opportunities.
- Close to public transportation facilities (major road and railway facilities).



These delineations extend to the containment of areas where development is permissible to areas where little or no development is permissible- such as environmentally sensitive or conservation areas.

### 3.4 URBAN EDGE

One tool for providing such delineations as discussed above is the urban edge. The urban edge will contribute to the achievement of the strategic objectives by conserving valuable environmental areas which would otherwise be compromised by development and promoting the use of existing infrastructure through redevelopment, infill development and densification within the edge thus achieving development that is sustainable. The urban edge also encourages the agglomeration of economies within the edge, encouraging scattered secondary or emerging nodes to develop into consolidated primary nodes as opposed to leapfrog development. The edge also ensures the protection of land- an exhaustible resource- by encouraging Brownfield developments instead of Greenfield developments.

### 3.5 TSHWANE RETAIL STRATEGY

A Tshwane Retail Strategy was formulated to guide decision-making on the development and management of retail nodes for the city.

Retail development should balance the needs of the retail sector with the needs of communities, urban functionality and sustainable development and should make a positive contribution to the overall urban environment. The local authority will take a more facilitative approach toward retail developments, provided that the actual development is in line with and support the urban objectives and contribute to a more functional, equitable, convenient and attractive metropolitan environment. Retail development should therefore be approached holistically, looking at the economic, social and environmental aspects.

The principles that underlay the approach taken in retail developments in Tshwane can be summarised as follows:

- To allow market forces and the free economy to determine the trend and tempo of retail development within the parameters set by the Tshwane Retail Policy.
- The desirability of a retail facility will be influenced by the broader area and the specific site as well as the degree to which the retail development contribute to the enhancement of the overall environment and the achievement of metropolitan development goals, as set out in the MSDF.
- Retail developments must be sensitive towards its location and surrounding environment, and be designed and sited in such a way that it contributes to the overall quality of the environment and not detract from it. A number of qualitative aspects will therefore have to be considered when evaluating retail applications, such as urban design, landscaping, public transport, interfaces etc.
- Retail applications and the evaluation thereof have to take consideration of the local context, i.e. the same guidelines and criteria do not apply uniformly to all parts of the metropolitan area.

Because of the fact that Tshwane comprises a large number of diverse areas, each with its own history, level of maturity, growth, population characteristics etc., it would be unwise to have a singular approach to retail development as a land use.

For this reason, a package of spatial strategies has been developed, that aim to address the relationship between specific contextual circumstances and future retail potential. These strategies should be interpreted more on local level, and are reflected in the Regional Spatial Development Frameworks.

### 3.6 RETAIL IN URBAN CORES

It is important to look at the retail development within urban cores relative other parts of the city in context. The retail developments in urban cores are not developed to the same level as in other parts of the city due to the inequitable development policies of the past. Nonetheless, these tables reflect that retail activity does serve as an economic activity within urban cores, albeit not to the same extent as in the metropolitan cores which have a long history of favourable development policies.



Within the current context of the city's development policies where equal opportunity is promoted, it is also important to note that retail development, as with many other economic activities, is largely a function of the private sector. The private sector is market-driven, which means that it responds to demand and consumer characteristic. At the same time, the consumer will seek out very specific retail typologies depending on their specific characteristics as a consumer. This supply-demand relationship between developer and consumer will remain a permanent state of affairs. At present, the extent of retail development has largely catered for the consumer group mostly found within urban cores. Previously, due to a lack of private transport and expensive public transport, low-income earners were compelled to source their needs from small localised township retailers. Lower priced goods available at township shopping centres or establishments offered not only the variety of goods available, but also allowed goods and services at more affordable prices.

But the population profiles throughout the city are changing as it becomes more integrated spatially, socially and economically. These new population dynamics require that access is given to the upwardly mobile of the former township areas so that spending within the retail arena or urban cores can be directed inward to contribute towards further developing the urban cores. Those that move up the social and income ladder that previously preferred to shop outside townships in upmarket malls (known as 'outshopping') may to a large extent start redirecting their expenditure to township malls if upmarket retail developments are increasingly brought into the urban cores.

The importance of increased, high quality retail development within urban cores is thus two-fold:

- Equitable access to retail opportunities
- Economic stimulation by redirecting spending that might otherwise leave the urban core back towards the core to increase development

While retail development is driven by the private sector, the city has a role towards facilitating the ease with which developers invest in the urban cores. This especially relates to service infrastructure and supporting development policies. Through the NDPG programme, public initiatives will support private funding within urban core areas.

Township/Catchment Area	Node/Precinct
Mamelodi/Nellmapius	1. Eerste Fabrieke Station Node
	2. Solomon Mahlangu Precinct (Denneboom Station)
	3. T-Section Node
Atteridgeville	4. Saulsville Station Node (includes: Saulsville Station, Atteridgeville Station, CBD and resorts)
Mabopane/Soshanguve	5. Mabopane Station
	6. Soshanguve South x14 (Klip-kruisfontein)
Hammanskraal/Temba	7. Hammanskraal/Temba Node
Olievenhoubosch/Monavoni	8. Olievenhoutbosch Node
Refilwe	9. To be determined
Zithobeni	10. To be determined
Ekgangala	11. To be determined
<b>Node being considered for future incorporation</b>	
Mabopane/Soshanguve	Garankuwa Node

#### 4. MOVEMENT AND CONNECTIVITY

Movement of people and goods throughout the metropolitan area is of city-wide importance. Movement in Tshwane can be described by the following diagram showing major movement patterns in the area.

- Many public transport dependant persons moving into the CBD from the north, the west and the east characterise every morning peak.
- Masses of private vehicles originating in the south and south-eastern parts move from the city in a southerly direction towards Johannesburg.

##### 4.1 URBAN FORM AND TRANSPORT INTEGRATION

In all successful cities there is a strong linkage and interaction between movement patterns and systems and urban development. It is necessary that land use planning is done in a manner which supports public transport but it

is also necessary to ensure that mass public transport planning promotes and supports urban restructuring and sustainable urban development.

The city historically developed around a strong central core as a mono-centred city. Private investment patterns changed over time with increasing car ownership and a ring of satellite nodes developed. These satellite nodes developed into viable decentralised locations, creating a multi-nodal urban form.

A further implication of the development of the satellite nodes is that the City of Tshwane is becoming increasingly inefficient and hence spatially unsustainable. More residents are becoming ever more dependent on private transport, which is becoming increasingly expensive. The majority of the City's residents have no option other than to rely on inadequate public transport which is also becoming more expensive and unsafe.

### **Spatial problems identified at Metropolitan Scale**

Tshwane is a very large and dispersed metropolis featuring numerous problematic characteristics:

- Low density sprawl: Based on an anti-urban ethic of the free-standing house on a plot.
- Fragmentation: the grain of development is coarse, with isolated (introverted) pockets (cells) connected by roads (and freeways), frequently separated by buffers of under-utilised open space.
- Separation of functions: land uses, public facilities (urban elements), races, income groups are all separated by great distances.

### **Settlement form**

The combined implications of the spatial patterns on the lives of the majority of residents are disastrous:

- Much time-consuming and expensive commuting is necessitated, which aggravates poverty (and inequity) in society;
- City living has become over-dependant on the private car, which the vast majority cannot afford;

- Increasing numbers of private cars results in traffic congestion and increases pollution;
- The nature of roads results in environments which generate few opportunities to which small-scale economic operators can respond;
- The system is inefficient and wasteful of scarce resources, such as land, energy and finance.

### **Future Spatial Development of Tshwane**

In order for Tshwane to accommodate the projected population growth and become sustainable within the Gauteng context, densification will have to take place within specific transport orientated corridors.

The future spatial development of Tshwane will focus on the intensification of urban and metropolitan core areas. The growth of Tshwane should be directed inwards towards the urban cores, mixed use activity spines and specialised activity zones.

### **The nature of Public Transport Corridors and their role as Macro Urban Structuring Elements**

The development of a mass public transport system such as the IRPTN/ Bus Rapid Transit System, Rail and Light Rail can be seen as a tool to achieve either of the following:

- The efficient movement of people around the metropolitan area; or
- The overall restructuring of urban functionality through the employment of an efficient and appropriate public transport system.

The distinction between the two objectives is important from an urban planning perspective. If the objective is merely to move people around in the city, particularly moving them from home to work and vice versa, then the development of a mass public transport system is purely a transportation issue and is primarily concerned with the provision of roads, infrastructure and vehicles.

However, if such a system is to be utilised to improve not only the movement of people, but also to contribute to the improvement of the overall urban

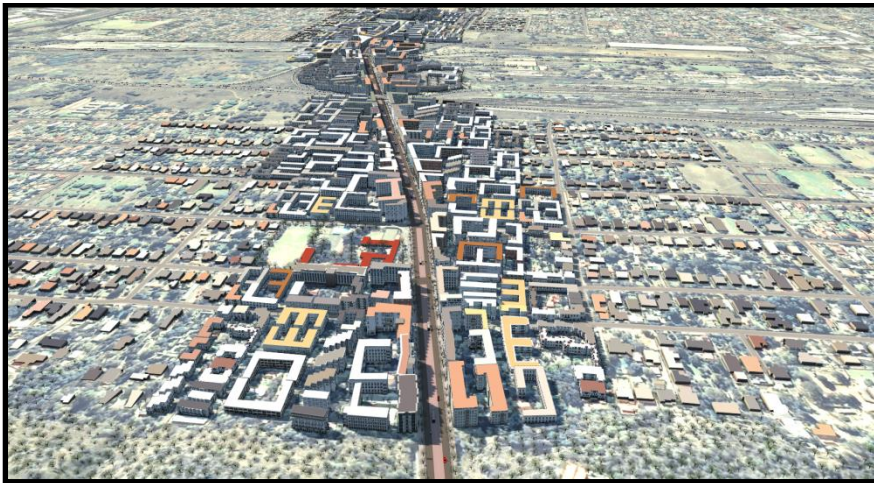


functionality and urban image, then the integration between aspects such as transport planning, land-use planning, urban design and urban management becomes vital.

### **Mobility/ Transport Corridors**

The primary reason for the existence of this type of corridor is to move large numbers of people from one point to another in the city and often over relatively long distances.

This corridor will typically move people from the peripheral areas to work opportunities and back during the day. Because of the long distances separating many people from their work opportunities there is a great need to move people around the city during peak hours in the fastest, most cost effective manner with as little stops as possible between the origins and destinations.



### **Activity Corridors**

The integration between land use, economic activity and movement is the key function of this corridor. People do not only move between the two outer points of the corridor but also between various points along the corridor.

A mature activity corridor displays most of the positive aspects associated with activity corridors, such as high residential densities and high non-residential land use intensities.

Such a corridor will be most appropriate in the more central parts where a number of nodes with a certain degree of intensity and mix of uses already exist in relative close proximity to each other.

Within the Tshwane context accessibility has to be ensured on the following three levels:

- To and from other parts of the world and South Africa
- To and from the Gauteng City Region
- Movement within the Tshwane Metropolitan Area

### **4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE IS:**

Highways which form the corridors for large scale economic development and connect Tshwane with the rest of Gauteng and the country. These include the N1, R21, the proposed western bypass (PWV-(9) and Bakwena Platinum Highway.

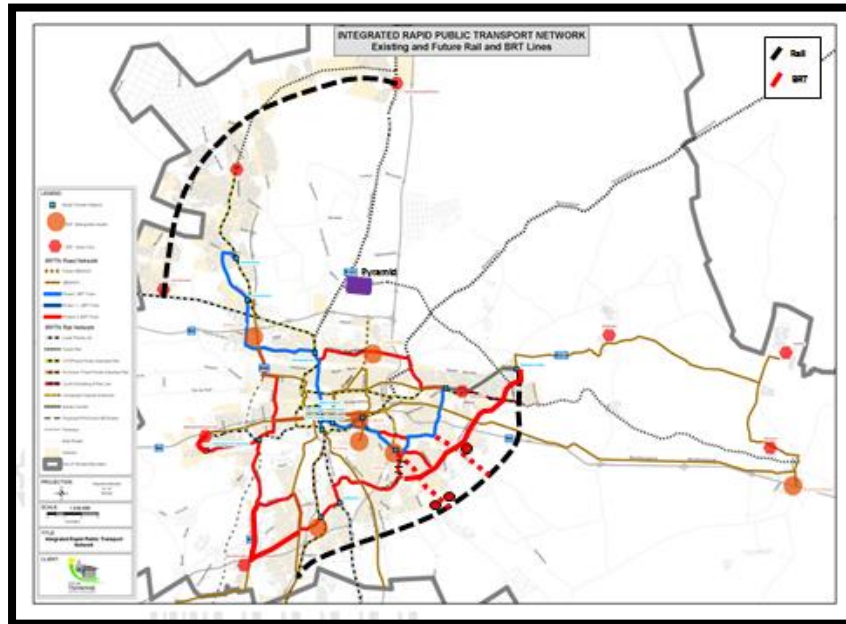
All areas in Tshwane must be well inter-connected by means of a good and efficient public transport system. Two systems are proposed that can serve as the basis of a public transport system, namely rail and the IRPTN/ Bus Rapid Transit System.

The existing rail system has great potential of becoming the basis of public transport throughout Tshwane and should therefore form the primary movement system, especially over the longer distances. This system however has current challenges that must be resolved.

The establishment of an IRPTN/ Rapid Bus Transit System is the ideal solution to solve public transport problems over short to medium distances, and will also contribute to connecting metropolitan activity nodes that do not lie on the rail network with each other.

The incomplete concentric road network needs to be developed further to serve the multi-nodal structure of Tshwane.

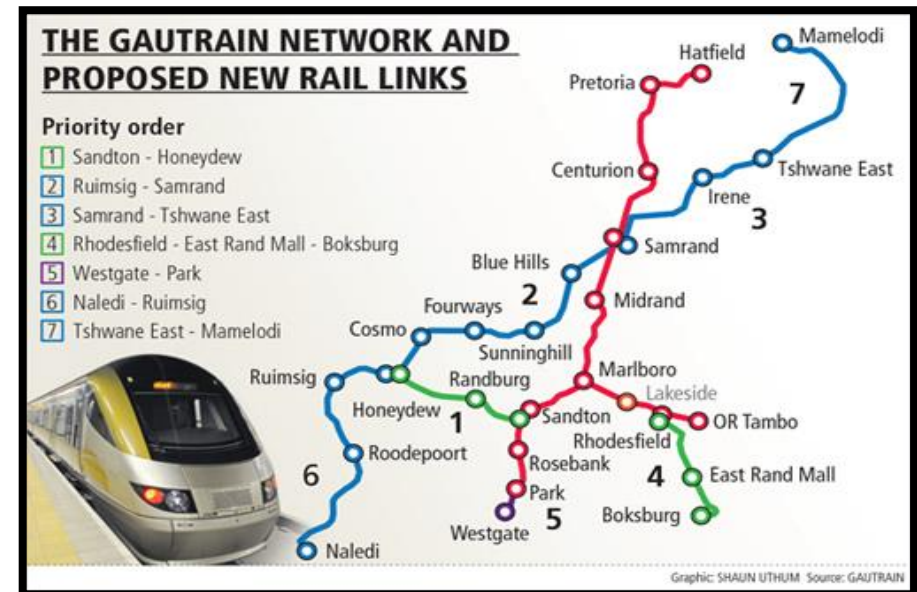
The Gautrain-rail is another movement system which links Tshwane to Johannesburg and the OR Tambo International Airport by means of a high speed rail link. The areas around the Gautrain Stations provide potential for urban renewal in and around station precincts. The proposed extensions of the Gautrain to the east of the city is supported and will improve the general movement within the city.



The Gautrain project is primarily aimed at enhancing and supporting economic growth in the Gauteng Province and generating employment opportunities.

The Gautrain is contributing to the urban restructuring of Gauteng Province. Gautrain station nodes are important as the more people start

to stay around stations, the better services are used, less time and money is spent travelling and a more convenient lifestyle is offered.



Spatial inefficiency- densification policies cannot be implemented without the support of public transport. More residences add more vehicles on roads which are over capacity. Public transport can be regarded as the tipping point of the success of the city's spatial policies.

Bicycle lanes and pedestrian lanes: Effort must be put in the establishment of separate bicycle lanes pedestrian walkways to allow for safe movement of the latter. If the latter is provided it will encourage this kind of transportation which will alleviate traffic problems.



With regards to the movement system, the central concern should be maximising access to regional opportunities. Access has both physical and non-physical dimensions. At a physical level this relates to convenience and at a non-physical level this relates primarily to affordability.

Apart from the physical route, there is also the matter of the modes of transport one will favour traveling along those routes. Tshwane is experiencing high economic growth, a growing middle-class, and increased vehicle ownership that is causing a surge in traffic volume and congestion. Public transit has not been providing an attractive commuting alternative for those who can afford private travel options.

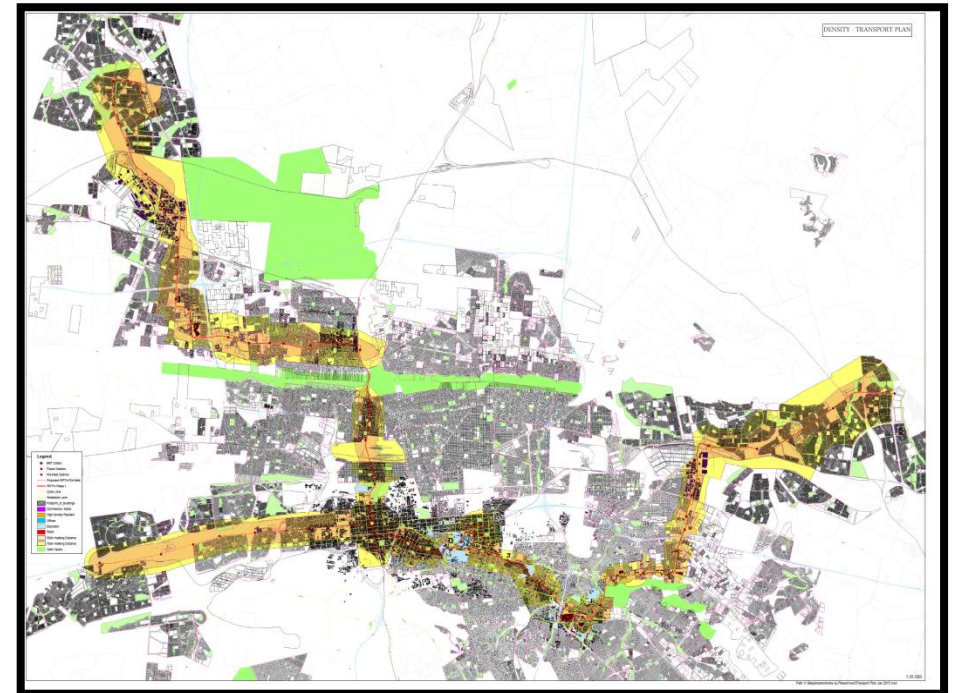
Prasa is currently undertaking studies into the existing and future demand and capacity of rail-based transport. All planning in this regard will also be informed by financial feasibility. There is an opportunity to increase efficiency and close public transport gaps by integrating the BRT network with the Rail network. The BRT offers opportunities for both long and short distance travel.

This means that where long-distance rail is not feasible, BRT can be implemented or *vice versa*, specifically in the case of long distance travel.



The integration should be carefully planned in order to ensure sustainability by avoiding competition between the two transport options. Preliminary indications are that there is not enough capacity to support both the Rail and BRT system along the same routes. Further, it is expected that the first phase of the BRT will link the Akasia and Menlyn area to the CBD. The BRT will provide both long and short distance travel options. This scenario negates the necessity for rail along the same route.

The Bus Rapid Transit and Rail should be the backbone of the future Tshwane transport system. The intention is that they become the preferred mode of travel for the majority of residents. In time, the improved public transport system should slowly start overtaking private vehicle usage specifically in nodal areas. This intervention will encourage transit-oriented developments.



Key characteristics of transit-oriented development include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 900 metres of a transit station
- reduced ratio of private car parking.

This means that developments that cater for, or provide public transport solutions or align themselves along public transport routes will be prioritised. The decrease of private vehicle usage will also promote pedestrianisation of urban areas and an overall decreased carbon footprint. On the reverse side, in order for efficient transport systems to be sustained, a critical mass of users must be achieved. This means that localities that would induce the convergence of large numbers of people would be required. This again, brings us back to the nodal concept of the widest possible range of services within an area and highest residential densities being supported. The higher the rate of usage of the public transport system, the more affordable it will be. At the same time, the convergence of a large number of private vehicles in a locality causes traffic congestion and an avoidance of such an area by those who have alternatives. Removal of private vehicles can effectively improve the quality of an environment.

The City's road, rail and air movement systems will need to be developed to optimise all related opportunities. The rail system should become the backbone of public transport throughout Tshwane and it is therefore an important structuring element of the city. The positions of the urban cores purposefully coincide with major railway stations. The Gautrain stations in Tshwane include Hatfield, Centurion and the Inner City, again creating opportunities for intensification and development. Further expansion to the east will also allow for additional densification opportunities.

The proposed metropolitan vehicular movement system should be designed to support the rail system, i.e. to enable convenient transport of people to and from the railway stations. The rail network which is well developed with only a

few missing linkages is not utilized in terms of its potential as a mass transport facility. With the majority of the population dependant on public transport the strategic rethinking of this mode of transport is necessary.



### Livable Streets Concept

Liveable streets are defined as streets for everyone that are planned, designed and operated to enable a network of safe access for all users, including pedestrians, cyclists and transit riders.

The liveable street concept requires streets to be designed to enable safe, convenient and comfortable travel and access for all users, regardless of their mode of transportation. Complete streets accommodate walking and cycling. Streets are currently designed to only cater for cars; pedestrians are accommodated in the leftover space along narrow sidewalks. No provision is made for other modes of transport and the socialising function of streets is ignored. This is specifically problematic in the inner city where there are large numbers of pedestrians and where the limited space available requires streets to be part of the open-space system.

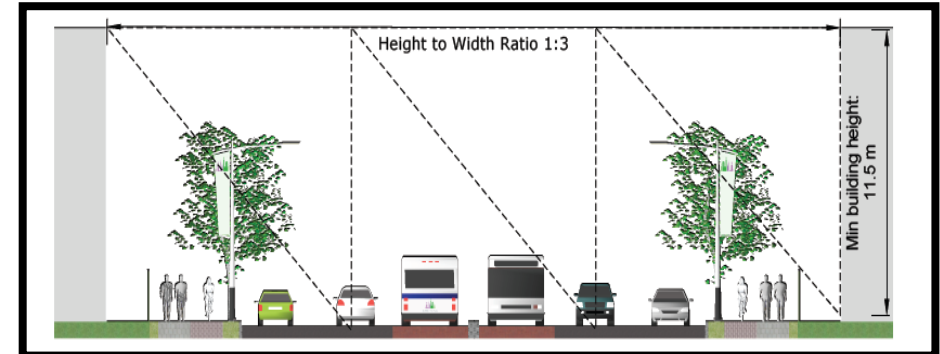
In terms of the complete streets concept vehicle and public transportation users are separated. It also makes provision for the socialising needs of residents and inner city users.

The design principles of complete streets are –

- traffic-calming measures to lower the speeds of vehicles;
- a road diet to reduce the number of lanes for vehicles and on-street parking;
- landscaping and street scaping elements such as trees and benches to create a conducive pedestrian environment and protect pedestrians from vehicles;
- wide sidewalks to accommodate comfortable pedestrian movement;
- widening of sidewalks in some places to allow for socialising spaces;
- accommodation of cyclists, such as protected or dedicated bicycle lanes;
- and
- Accommodation of public transport such as the bus rapid transit.



Source: City of Tshwane, City Planning and Development Department



The attached diagrams give a clear indication of how the trunk routes must be developed in cases where 32m and more than 40m road reserves are available.



## 5. ENVIRONMENTAL STRUCTURING CONCEPT

### 5.1 HERITAGE AND CULTURAL SITES

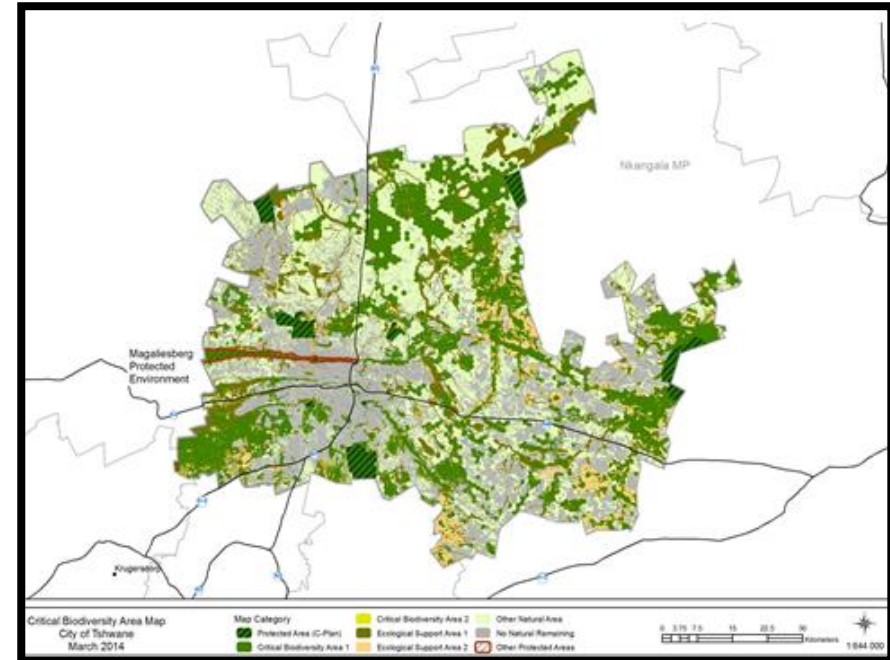
Tshwane's urban form and identity is closely linked to the influence of its natural and cultural elements. The developed areas are intimately intertwined with open spaces, creating a city with a unique character. The spatial development of the city should continue to value the role and prominence of the natural environment that sustains and informs the city. The natural structuring elements of Tshwane are those physical features that have to a great extent influenced the historical growth and settlement development pattern and that have an important ecological role to play in the ecological integrity of the metropolitan area.

### 5.2 OPEN SPACE AND CONSERVATION AREAS

A well-defined open space network is an important and integral part of the Spatial Development Concept of the MSDF.

The Tshwane Open Space Framework was approved in November 2005. The Framework will need to be reviewed and updated to include the newly incorporated areas of Tshwane.

The development of an open space network is an integral part of shaping the city. Ecological resources are irreplaceable and should thus be one of the major structuring elements guiding the development of the city instead of unplanned urban growth taking precedence and open space becoming merely land that is not desirable for urban development and thus 'left over' space. An important step in shaping urban form is thus the determination of an open space network, which contains natural processes and systems. The open space network is concerned with the spatial structure of green areas in the urban landscape and with all planning activities that are essential to create conditions for green areas to perform ecological services and to contribute to the quality of urban life. It is thus used to indicate the position of green areas in the urban landscape. As such it has spatial, social and technical dimensions. An open space network is also a planning concept, indicating the intention to develop planning and management tools for the structural role of green areas in the urban fabric and the urban organization.



An open space network contains not only the elements that constitute the open space in itself (vegetation, water, animals, natural materials etc.), but above all how the various open spaces are shaped in relation to the concepts of distribution and organization, to form a system of open spaces. An open space network incorporates a wide variety of open spaces into one system. Open spaces cease to be discreet elements within the city but together form a network in which each component contributes to the whole.

It must be stressed that an open space network does not focus only on 'green' spaces, but also on more urban or 'brown' spaces as well as spaces that contribute to the place-making of the city.



From a city-planning perspective open spaces have various important functions:

**City structuring:** Historically Tshwane's numerous mountain ranges and ridges, rivers and water courses, and nature reserves and conservation areas have had a lasting impact on the city form and development pattern. Today this impact is still felt, as the Magaliesberg with only a few crossings still forms a barrier between the more prosperous southern suburbs of Tshwane and the less well developed northern suburbs. The scenically beautiful conservancy areas in the south-western part of the city form natural buffers for urban expansion in that direction.

On the other hand these structuring elements do present an opportunity to connect and integrate the various parts of the city, e.g. the Apies River which crosses almost the entire municipal area from south to north.

**City image and identity:** The mountain ranges and ridges, and large conservancy and protected areas in particular, and rivers and water courses to a lesser degree, are responsible for Tshwane's unique African character and identity, which is being best described as 'nature within a city' and 'a city within nature'. There is the positive contrast between the built-up and natural environments everywhere, but nowhere more expressive than at the southern approach to the inner city. This uniqueness must be protected, enhanced and celebrated at all costs in the future.

**Urban expansion:** The large open spaces (ridges, conservancies, protected areas, etc.) contain urban expansion and prevent the city from developing into a monotonous build-up urban 'desert'. Because of the limitations on land availability this will eventually lead to a more compact city with higher densities, guarantying a more sustainable and efficient urban structure for the future.

**Land Uses:** Land-use planning must be done in relation to the open space network where possible, which creates the opportunity to place various urban land uses or developments inside or adjacent to the network. The full potential of the open space network can therefore be exploited for unique projects which otherwise would not be feasible.

Open Spaces thus include the following:

**Conservation Areas:** Areas designated for nature conservation, which may include tourism related facilities and recreational facilities directly related to the main use.

**Tourism and recreational related facilities:** Outdoor and tourism related activities, including hiking trails, hotels, 4x4 trails, wedding venues, conference facilities, curio markets, farm stalls, restaurants, game lodges and resorts with a rural character with due consideration to its impact on the surrounding area and environment. The CoT has tremendous opportunities in the eco-tourism arena. Most of the eco-tourism activities occur along the Roodeplaat Dam which is situated in the north of Cullinan (Zambezi) Road on the farms of Zeekoegat, Leeuwfontein and Roodeplaat. There is also the Dinokeng Blue IQ project. Eco-tourism activities that can be enjoyed include but not limited to the following: game farms, nurseries and bird watching to mention but a few.

In Region 4, tourism opportunities exist in the western and north western area, adjacent to the Cradle of Mankind World Heritage site, the Crocodile River basin, The Hennops River basin and the main access routes from the south to the Hartebeespoortdam area (R511).

**Residential (within the natural areas where you find irreplaceable, important and highly ecological sensitive sites):** Environmental Development or **service centres** aimed at the local market, and which are situated at a service delivery centre or central place to the community.

Estates where the primary focus is the conservation of the natural resource (open space). Conservation in this sense must not be seen as only protecting special or sensitive environments, but conserving open space as a valuable resource itself. The residential development is seen as a mechanism to protect and enhance the open space character and not as an end in itself. Special conditions shall apply in the consideration and approval of such developments, including the following: Dwelling units shall be grouped together in as few clusters as possible; a Strategic Environmental Assessment shall be done to determine the open space, the position of the clusters, the position of ancillary uses, roads;

conservation conditions shall be strictly adhered to; conditions shall be set for the design, character and overall relationship with its environment.

Roodeplaat Dam and Bronkhorstspuit Dam are under immense pressure from high income essential enclaves. Increased development pressure could cause serious degradation of the natural areas as limited environmental management guidelines exist.

### 5.3 RURAL MANAGEMENT

#### Introduction

The erstwhile City of Tshwane (previous dispensation) was mostly characterized as an urbanized Metropolitan area with only a smaller sector known and characterized as definite Rural Areas. It is also important to note that parts of these apparently Rural Areas were further earmarked as Future Urban Development Areas. These Future Urban Development Areas were designated in terms of each Regional Spatial Framework for future urban expansion and development.

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order e.i. to protect the Environmental sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land use development in the less sensitive areas.

#### Background

The following source documents were used as building blocks for the compilation of the revised Rural Component, Rural Management and Rural Development:

- Tshwane Biodiversity Plan. (2016))

All information with regard to the existing Urban Edge, Ridges, Ecological support areas, important areas, Irreplaceable areas,

Protected areas, Conservancies, Game Reserves and Nature Reserves were used

- The existing and future provision of essential services

Information with regard to the provision and capacity of Water

(Reservoirs), Sanitation (Waste water plant), Roads, Storm water, Electricity, watersheds and flood lines were used to determine the development edge

- The Metsweding Environmental Management Plan
- The “Division” of Farm land Plan and policy
- The Gauteng Spatial Development Framework 2011.
- The National Planning Commission: National Development Plan 2011: Chapter 6: An Integration and Inclusive Rural Economy.

It must be noted that all these documents were used to inform the revised Rural Component and did not dictate the final product.

#### Demarcation of the Rural Component

In terms of the Gauteng Spatial Development Framework, 2011 the responsibility of determining the Urban Edge has moved to the Local Authorities and is no longer a responsibility of the Provincial Planning Authority.

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision for essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

These areas will remain as Future Urban Development as it shall retain a rural character until such time that basic services can be provided. These areas still need to be managed as rural areas with specific guidelines contained in the different RSDF's.

As soon as the areas earmarked as Future Urban Development Areas been serviced, these newly serviced areas will be excluded from the Rural Component and will form part of the urban fabric of the city.

## Vision

The Tshwane Rural Component will promote:

- An effective response to rural poverty.
- Ensure food security by maximizing the use and management of natural and other resources.
- Create vibrant, equitable and sustainable rural communities.
- To contribute towards the redistribution and sustainable use of all potential agricultural land.
- Rural economies will be supported by agriculture and agro processing, and where possible also by mining and tourism.
- To create employment and business opportunities for the existing rural population.
- Aims to prevent natural disasters like erosion and pollution and other detrimental effects on natural resources.
- Formalize residential settlements according to the Rural Component Framework.
- Accessibility to community facilities, work opportunities and housing for all
- Maintenance of acceptable standard for roads and other transportation modals
- Public transport should be provided as a service for the more densely rural areas.
- Identification of multipurpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations.
- Adequate and respectable services must be addressed to improve living conditions.
- The institutional arrangements of ownership and tenants' rights must receive attention and finalised, especially in areas where tribal land ownership exists.

## Guidelines

In the new Tshwane Metropolitan Rural component, the following conditions exists that need to be taken into consideration. Each Region has its own specific rural character and rural composition and detail proposals for the Rural component are therefore dealt with in each Regional context.

Various Rural land use/ Rural activity zones are located within the Rural areas and are indicated on the different Rural Component maps for each Region. Together with the maps there are tables contained in each of the Regional Spatial Frameworks with restrictive or promotional conditions for every Rural land use/ Rural activity zone located in that Region.

The Rural land uses/ Rural activity zones for Tshwane Metropolitan area are:

- Development Edges
- Major Rural Roads
- Existing Infrastructure for essential services
- Future Urban areas
- Management zones
- Agricultural areas and
- Agricultural High Potential areas
- Sensitive protected areas. (Combination of C-Plan protected areas), including (Ridges and Streams, Natural resources, Fauna and Flora protected places/ areas)
- Heritage and Cultural protected areas
- Tourism potential places/ areas
- Human settlements
- Conservancies
- Game and Nature Reserves
- Mines / Places of manufacturing
- Community Service Centres

## Conclusion

The main principle is to increase accessibility for rural people to basic services in support of survival strategies in the first instance and, in the second, to establish a base from which to start engaging more in productive activities. Given limited resources, the rural component should provide for basics for survival to all existing settlements but no provision for additional settlement growth. Localities with some economic potential should receive higher levels of- and a wider range of services/ facilities.

The Smart growth principle will further more be strengthened through a well-managed Rural Component and will assist in:

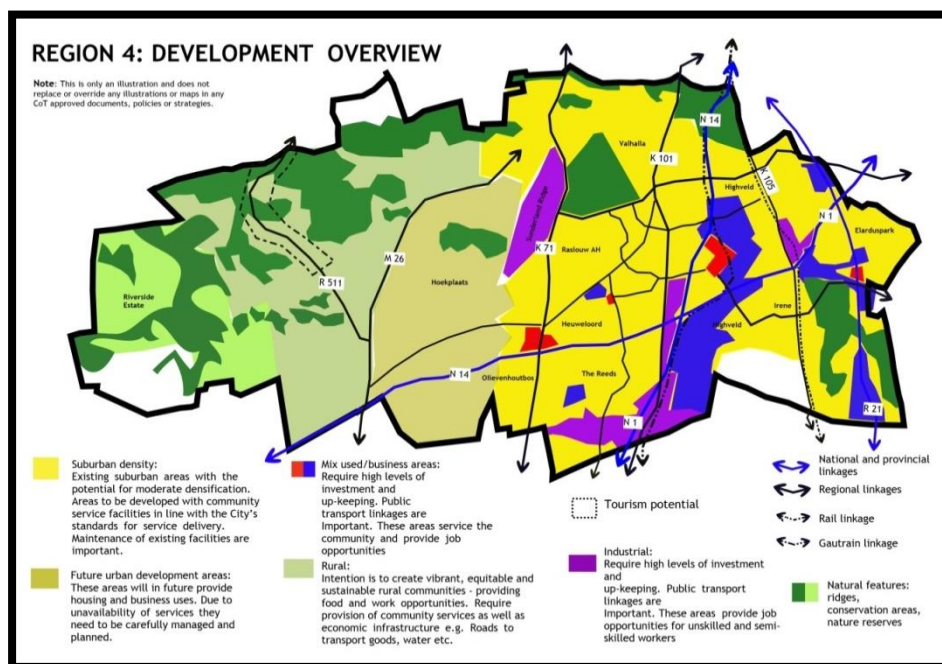
- Discouragement of urban sprawl and contain growth with the city limits
- Compaction of the city through infill and densification
- Improvement of the utilisation of existing infrastructure, services and facilities
- Preservation of the rural environment and landscape
- Protection of agricultural land, especially high potential agricultural land
- Preservation of the environments that promote tourism, recreation and nature conservation
- Assisting the urban regeneration by adopting an inward approach
- Protecting cultural and tourism assets.

## PART THREE: REGIONAL ANALYSIS

### 3.1 LOCALITY

Region 4 is situated in the south-western portion of the Metropolitan area.

The Region borders on the area of jurisdiction of the City of Johannesburg Metropolitan Municipality, Ekurhuleni Metropolitan Municipality as well as Mogale City to the west.



Region 4 is accessible via:

- The N1 Highway which runs partly through the Region and links the City of Tshwane with the Limpopo Province in the north and Johannesburg, Bloemfontein and Cape Town towards the south.
- The R21 Highway, which runs along the eastern boundary of the region and connects the City of Tshwane with the Ekurhuleni Municipality and the Oliver Tambo International Airport.
- The R28 (N14) Highway which connects the Region with Mogale City (Krugerdorp) and the North-West Province.

The Region is highly accessible from a regional point of view as it is served by both north-south and east-west first order roads (Highways) linking it to the rest of Gauteng and the broader region.

### 3.2 AREA

Region 4 is in extent 489 km<sup>2</sup> and has 11 wards.

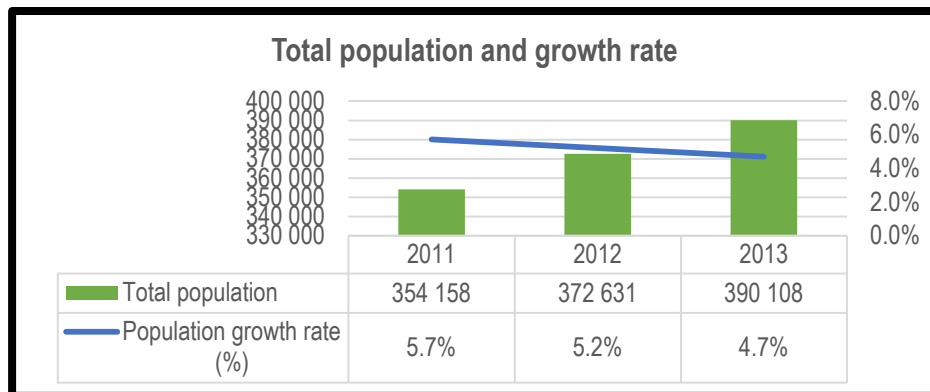
	M <sup>2</sup>	km <sup>2</sup>	ha	Wards
<b>Region 4</b>	488,555,898	489	48856	11

### 3.3 DEMOGRAPHIC INFORMATION

An estimated population figure for this area suggests 446 457 people in 2016.( IHS Global Insight ) The average growth rate for Region 4 is about 4.6%. The average growth rate of Region 4 is the highest of all the regions.

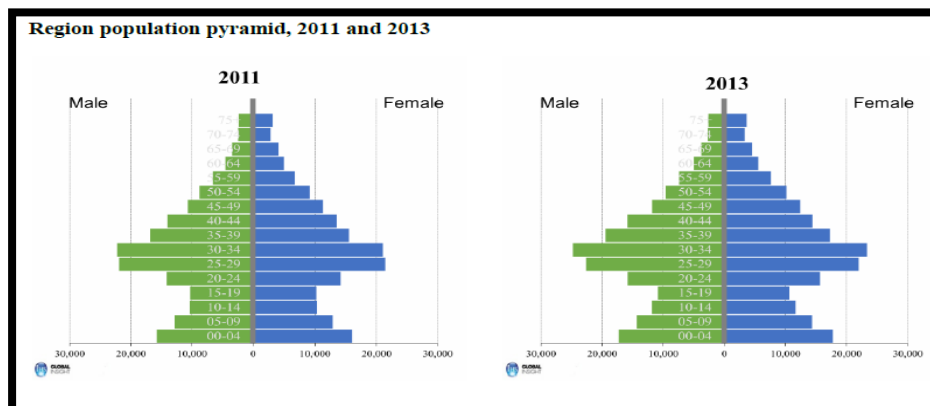


## Total population and growth rate, 2011-2013



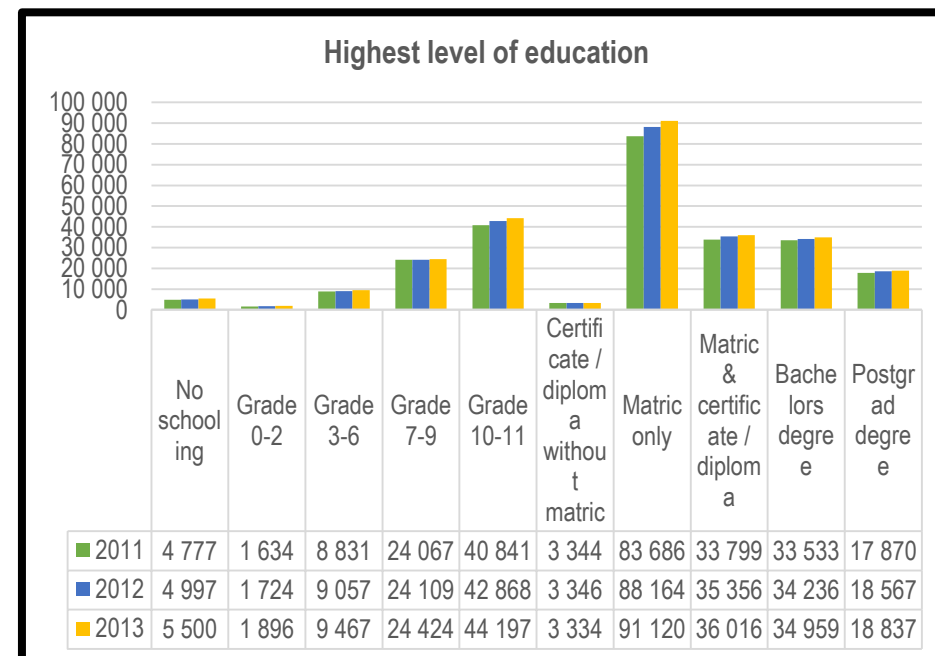
Source: IHS Global Insight

The above graph indicates the total population in Region 4 and the associated percentage growth rate since 2011 to 2013. As indicated in the figure, population in Region 4 has been steadily increasing in nominal terms, however, the percentage growth has been subjected to minor volatilities. In 2011, the total population was approximately 354 158 and grew to 390 108 in 2013, representing 10 percent growth over the period. The population growth is growing at declining rate, in 2011 the population growth rate was at 5.7 percent and this has declined to 4.7 percent in 2013.



The previous graph indicates the 2011 and 2013 population pyramid for Region 4, from the figure, it can be noted that there is a youth bulge in Region 4's population i.e. it can be observed that a significant portion of Region 4's population is younger than 35 (59.7 percent).

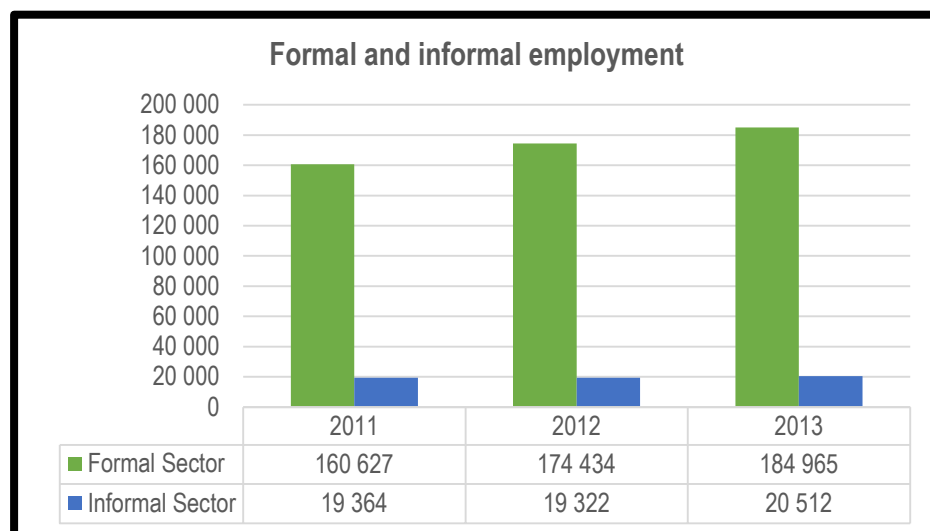
## Highest level of education attained for Region 4



The above graph indicates the highest levels of schooling for the population aged 20 years and older in Region 4. As indicated in the figure, Tshwane has over the years under review i.e. 2011 – 2013, increasingly performed well with respect to education, more so in the accumulation of both matric and post matric qualifications. In 2011, approximately 33 799 individuals aged 20 years or older, had at least a matric qualification, this has since increased to 34 959 individuals in 2013. The number of individuals aged 20 years or older with no schooling have since increased from 4 777 in 2011 to 5 500 in 2013, i.e. a 15 percent improvement.



## EMPLOYMENT IN REGION 4 BY SECTOR (FORMAL AND INFORMAL), 2011 -2013

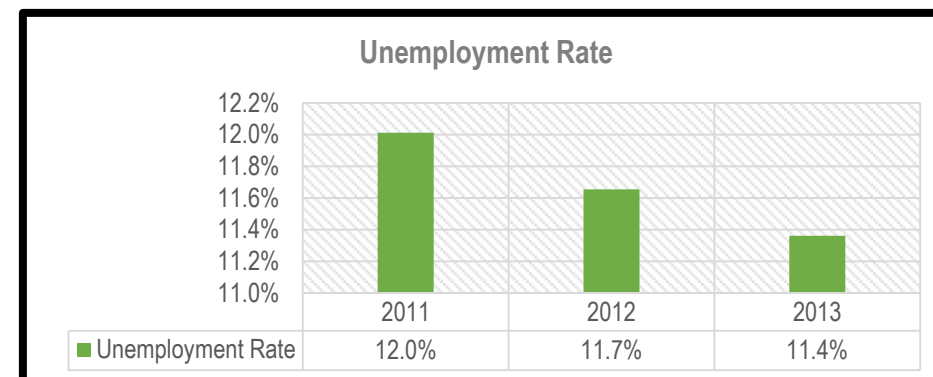


Source: IHS Global Insight

The above graph indicates the total employment in Region 4 disaggregated by sector (formal or informal). As indicated above, total employment in Region 4 has been steadily increasing over the 2011-2013 period. In 2011, total number of individuals employed in the region were approximately 179 991, these have increased to 205 477 in 2013. As one would expect, the largest composition of this employment is formal employment which was 160 627 in 2011 and this has increased to 184 965 in 2013, on the other hand, informal sector employment has increased from 19 364 in 2011 to 20 512 in 2013.

## UNEMPLOYMENT IN REGION 4, 2011 -2013

805



The above graph indicates the unemployment rate in Region 4. It can be noted from the figure that the unemployment rate in Region 4 has been relatively unstable, however, over the 2011 – 2013 period, region 4 recorded improvements. In 2011, the unemployment rate was 12.0 percent, this slightly improved to 11.4 percent in 2013.

## SERVICE DELIVERY

Access to service delivery is a key government responsibility. Table below reflect the share of households occupying formal dwelling, households with hygienic toilets, piped water at or above RDP level and in Region 4.

### Share of households occupying formal dwellings

Year	Share of household occupying formal dwellings	Share of households with Hygienic toilets (%)	Share of households with piped water at or above RDP-level (%)	Share of households with electrical connections (%)
2011	75.2%	88.6%	91.7%	86.1%
2012	74.2%	87.7%	91.9%	85.2%
2013	73.0%	86.4%	91.5%	84.2%

Share of household occupying formal dwelling measure combines households occupying both formal and very formal dwelling units and takes the total as a percentage of all households. A formal dwelling unit is a structure built according to approved plans. This category includes a house on a separate stand, flat or apartment, townhouse, room in backyard, rooms or flatlet elsewhere etc, but without running water or without a flush toilet within the dwelling. A very formal dwelling unit is the same as a formal dwelling unit but has both running water and flush toilets within the dwelling.

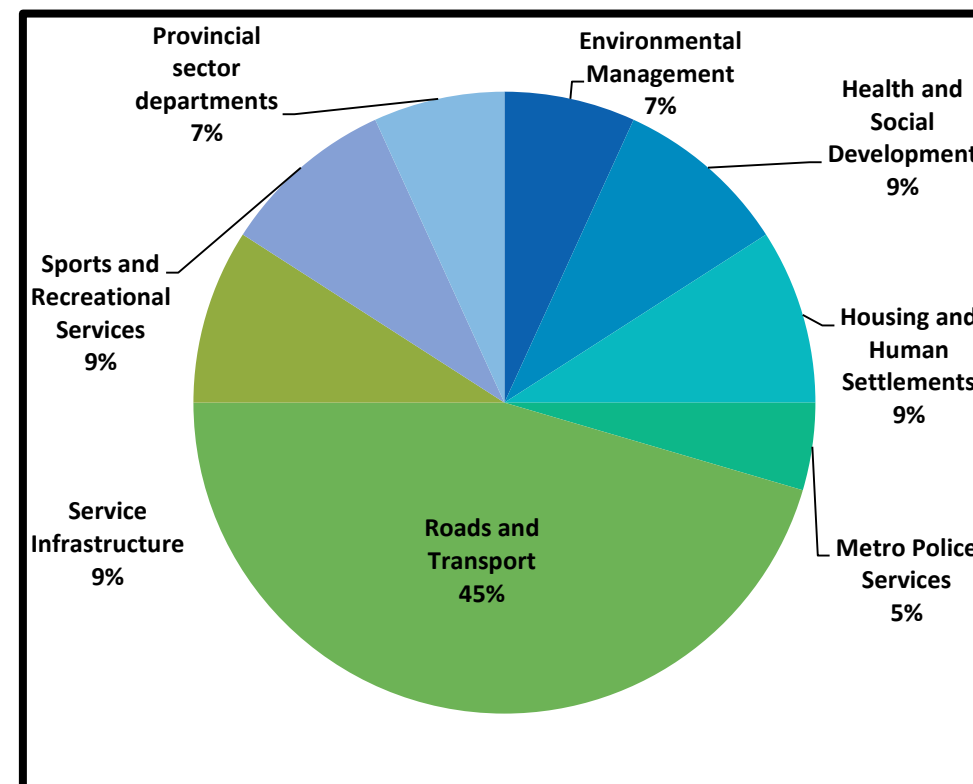
### 3.4 WARD PRIORITIES FOR 2015/16

During the public participation process in preparation for the 2015/16 IDP review; the three top priorities per ward in terms of community needs/ service delivery were reconfirmed and compiled.

In summary, the following were the key dominant service delivery areas which were raised in Region 4 during the 2015 review process:

Dominant Service Delivery Areas per ward	
Service Delivery Department	Community Issue / Concern
Roads and Transport	Road upgrades and traffic congestion Stormwater management/ flooding Public transport facilities and management of facilities
Health and Social Development	Health facilities needed (clinics/ mobile clinics/ hospital) ECD Centres needed

The service delivery issues which were raised are therefore clustered in 806 relevant City's departments as per the graph below:



### 3.5 REGIONAL CHARACTERISTICS

The main characteristics of Region 4 are discussed below:

- The Region consists of an urban area to the east and a rural area to the west of which both areas are currently under pressure for development.
- The core area of Region 4 is located between two major highways, the Ben Schoeman Highway (N14) and the N1 Highway (M1).

- The N1 corridor represents one of the most sought after development strips in South Africa. This corridor manifests primary within the Midrand and Centurion areas and it is known as one of the high technology belts within the South African economy.
- The Region falls within the Economic Core identified for Gauteng Province with the legs of the triangular core the N1 Highway on the western side and the R21 Highway with its linkage to the Oliver Tambo International airport on the eastern side. This economic core is the primary growth focus for Gauteng Province.
- Region 4 is located at the southern gateway of the City of Tshwane and is easily accessible from the Johannesburg financial and corporate district and the Oliver Tambo International Airport.
- The region includes and shares with other regions a number of conservancies within easy reach of Johannesburg and the greater Tshwane area.
- The Hennops River basin is situated within this region. The Crocodile River basin located in Region 3 also contributes water to this region. These are important natural resources which provide opportunities for tourism and recreational activities.
- The underlying dolomite in the region, the sensitive environmental areas and ridges tend to direct and inform urban development.
- Region 4 covers an area of 48856ha and consists of 11 Wards.

### 3.6. ECONOMIC BASE

The following information indicates that the Region's local economy is based on the certain dominant economic sectors:

- Finance and Business Service Sector (26.7%)
- General Government Services (22.7%)
- Manufacturing Sector (18.1%)
- Trade Sector (14%)

Region 4 forms part of an area of economic expansion to the north of Johannesburg. This sub-node is dominated by Smart Industries and Business Tourism. There is a prospect for future expansion of a Smart Industry/Knowledge Regional sub-node that could be used in strengthening the Gauteng Province's comparative advantage as a "Smart Province".

## 3.7 PHYSICAL ENVIRONMENT

### 3.7.1 NATURAL STRUCTURING ELEMENTS

The environmental features of Region 4 are major form giving elements that determine the surrounding urban structure.

- Significant sensitive open space resources, especially so in the western parts of Region 4, which forms an integral part with the open space resources of the south-western part of Region 3;
- Significant ridge systems in Region 4 and contributing to the Region such as Klapperkop, Skurweberg, Langeberg, Kwaggasrand, Groenkloof Ridge;
- Significant watercourse systems in Region 4 and contributing to the Region, i.e. Hennops River, Apies River; Riet Spruit, Swartbooi Spruit, Sesmyl Spruit; Crocodile River, Jukskei River;
- Several dams, quarries and wetlands, i.e. N1/ R21 Quarry, PPC Quarry, Gommies Quarry, Rossway Quarry, Ecopark Wetland, Centurion Lake;
- Significant Protected Areas, notably three Conservancies, a World Heritage Site and four Nature Reserves;
- Ecologically sensitive areas associated with ridge and watercourse systems;
- Potential Place making opportunities around the N1, R21, Provincial roads and Centurion Metropolitan Core;
- Several cultural and historical sites at Cornwall Hill, Irene, Rooihuiskraal, Kopie Alleen, Hospital Cave, etc.

### 3.7.2 STRATEGIC LAND USES

The Region includes a few prominent land uses of strategic significance to the local as well as the broader urban environment of Tshwane. These include:

- Zwartkop and Waterkloof Military Airports.
- Thaba Tshwane/ Voortrekker Hoogte Military Base.
- Centurion Metropolitan Core
- Centurion Gautrain Station.
- Super Sport Park
- Highveld Technopark.
- Highway Business Park
- Route 21 Corporate Park
- Sunderland Ridge Industrial Area.
- N1 Corridor – mixed use development.
- Samrand Commercial Area
- Gateway development.
- Olievenhoutbos Absa Housing development.
- Centurion Aviation Village (CAV).

### 3.7.3 NODES

Region 4 accommodates a large percentage of the higher income community of the City of Tshwane with the result that many offices and retail functions have relocated to the region during the past few years.

The Centurion CBD (Metropolitan Core) is the strongest node in the region.

A new Emerging Node was approved during 2012, situated at the intersection of the N14 Highway and the K55 routes, known as Forest Hills. This emerging node will be supported by various other approved mixed use developments.

Various township applications were approved, that will form part of the Irene Emerging Node. The existing Irene Village Mall forms the core of this emerging node and various additional land uses will be integrated e.g. retail, offices, high technology industries, industrial uses etc.

During 2011, a new Emerging Node situated at the intersection of the R55 and Main Road (K103) to the east of Erasmia, known as Erasmia Extension 15, was approved. This emerging node will be developed as a regional retail centre as well as various other mixed land uses such as wholesale trade, warehouses, motor related uses, etc.

Numerous large nodes are located throughout the region accommodating combinations of retail, office and industrial functions.

- Route 21 -Corporate Park (high technology industries and offices)
- Sunderland Ridge - Industrial
- Highveld Technopark – Industrial and Office development (part of N1 development corridor)
- Hennospark Industrial Area (part of the N1 development corridor)
- Louwlandia - Commercial/Industrial
- Samrand/ Kosmosdal – Commercial/Industrial
- Mall@Reds – Retail
- Doornkloof Mall - Retail
- Pick & Pay Lifestyle development –Retail and Commercial
- Southdowns Shopping Centre– Retail and Offices

### 3.7.4 INTEGRATED (MIXED) LAND USES:

The trend for new development is integrated development nodes which include various land uses and emphasize the need to incorporate job opportunities close to residential development. The following integrated nodes have been established/ envisage within the region:

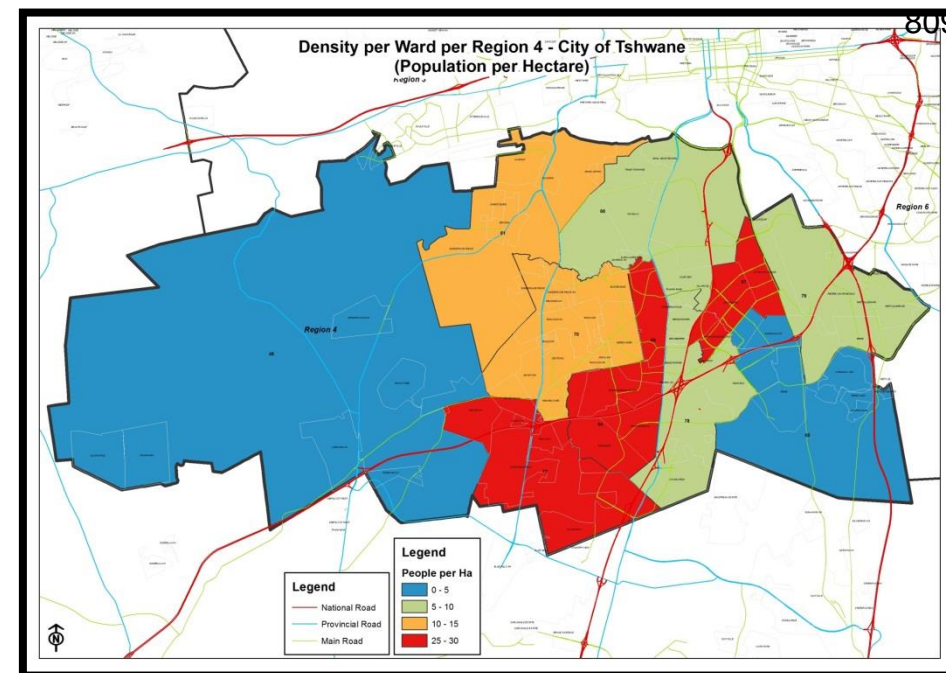
- Eco-Park (Highveld) – including different housing typologies, commercial, retail, office development
- Louwlandia/ Heritage Hill– Mixed use development
- Route 21 integrated development consisting of Route 21 industrial Commercial development, the Irene Central development as well as the 5 o'clock development
- The proposed PWV 9 development corridor

### 3.7.5 RESIDENTIAL

In terms of a city wide perspective the region has the following residential characteristics.

- Although beyond the municipal area, it is of importance to note that in addition to the above number of structures, Diepsloot (Johannesburg Metro), along the region's southern boundary, accommodates 7000 formal structures and 30 000 informal structures.
- To the west of this Region, the Lanseria Precinct with residential densification and job opportunities surrounding the area to the north of the Lanseria Airport, abuts this Region.
- The average household size according to Census 2011 is 2.9 persons per single residential structure.
- Vacant areas within the suburban environment have recently developed extensively with densities varying from 400 units per hectare to lifestyle and gentleman's estates. Rural densities is very low and only densities of 1 dwelling per 1ha and 2 dwellings per 1ha (management area) and 1 dwelling per 5ha (rural area) are proposed in line with the Rural Component.

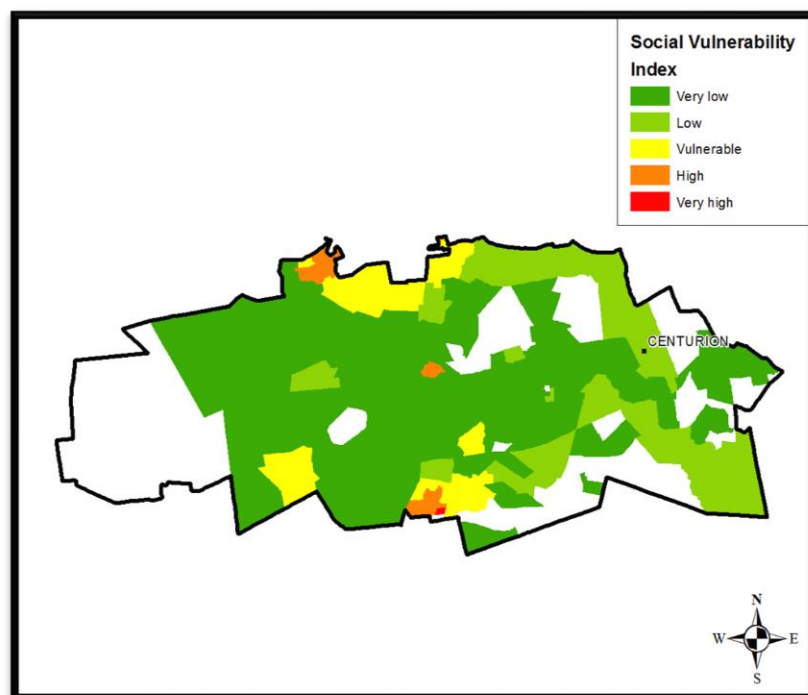
Ward	Population	Area in Ha	Density per Ha	Dwelling Units	Average Household Size
48	35896	21051.31	1.71	12757	2.81
57	28131	1099.46	25.59	11304	2.49
61	42756	4243.79	10.07	13296	3.22
64	35216	1340.71	26.27	11212	3.14
65	21396	4488.97	4.77	7624	2.81
66	23483	4005.81	5.86	6677	3.52
69	24631	983.58	25.04	8752	2.81
70	31205	2993.57	10.42	10062	3.10
77	84536	3199.53	26.42	28777	2.94
78	23183	2471.33	9.38	8829	2.63
79	28902	2977.53	9.71	10077	2.87
<b>Total</b>	<b>379335</b>	<b>48855.59</b>	<b>7.76</b>	<b>129364</b>	<b>2.93</b>





### 3.7.6 Region 4 Social Vulnerability Index

This region consists of urban areas in the east and rural areas to the west, and exhibits low to very low vulnerability (lighter green to green shades) (figure 3.5). The region is currently under pressure from accelerated development, and contains large residential areas of medium-to-high income populations. There are two distinct pockets of socially vulnerable communities: Mooiplaats, and Olievenhoutbosch. Heuweloord and Laudium also display some vulnerability. The southern areas of the region are located in dolomitic areas, which render them susceptible to sink holes if subjected to heavy rains (Figure 3.6), are located within the flood line making them susceptible to flooding. However, the types of human settlements and the socio-economic status of the majority of the population in these areas implies reduced vulnerability to this threat.



## 3.8 MOVEMENT AND TRANSPORT SYSTEM

810

### 3.8.1 Road Network and Private Transport

The primary road network through this region is of a strategic nature and also has national and regional significance, connecting Johannesburg with the City of Tshwane.

The primary network consists of the following routes:

- N1 Highway
- Ben Schoeman Highway
- R21 Highway
- N14 (R28)
- R 101 (Old Johannesburg Road)
- R 55/ K71 (Voortrekker Road)
- K103 (Trichardt/Wierda Road)
- K 52
- R511/ M26
- R 26

The supporting arterial network within the urbanised area is under pressure during peak hours due to accelerated development. Some of these routes are currently operating at capacity. Especially the primary roads in the western part of the Region (Rural areas) need to be upgraded and maintained.

### 3.8.2 Public Transport

#### **Rail**

The Johannesburg – Pretoria commuter railway line passes through Region 4. Due to the location of the railway line and the extent of the Region, the rail system in practice serves only a small portion of the population that is concentrated in the east of the Region.

Development trends and pressure for development are to the south and to the west of the Region, of which the latter is not served by the current rail system.

The Gautrain Rail runs through the area along the N1 from Midrand, crossing the N1 Highway and John Vorster Drive, along West Street



crossing the Ben Schoeman Highway close to Jean Avenue. From there it runs west of and adjacent to the Ben Schoeman Highway in a northerly direction, up to Pretoria Station.

The Gautrain bus service provides the road based feeder service in conjunction with the Gautrain rail service. This bus service can be altered as demand dictates. The Centurion Gautrain Station Precinct is situated north of West Street opposite the Centurion Lake and forms part of the Metropolitan Urban Core.

### **Road based**

Taxi transport is the predominant mode and has a larger market share than bus transport, although there are private bus services operating in the Region.

### **Air Transport**

The two military airports in the Region mainly affect land uses and land use planning within close proximity to these airports. The most important aspects in this regard are safety and noise control.

Safety relates to the flight paths leading to the runways. Restrictions on the height of structures within the identified obstruction free areas have been identified and should be included in decision making when changes in land use are considered.

The Waterkloof Air force base and the Zwartkop Air force base also create economic opportunities. The long term objective of the Centurion Aviation Village development adjacent to the south-eastern boundary of the Waterkloof Air force base is to create an Aero-Mechanical Manufacturing Cluster of International importance.

The Lanseria Airport is situated just south-west of this region creating opportunities for economic and residential development within Region 4.

### **BRT**

No lines are planned in Region 4 in the first phase of the BRT role out.

## **3.8.3 SERVICE INFRASTRUCTURE**

811

The Region is generally well provided with service infrastructure. With development rapidly moving closer to the development edge and demarcated urban edge to the west of the region, development pressure in this area challenges the rate at which bulk infrastructure can be provided to accommodate expansion.

It is common knowledge that the provision of sufficient roads and capacity on existing roads is under pressure, especially in areas such as Irene, Highveld, Louwlandia and the Centurion CBD. Provision and extension of essential services (electricity, water and sanitation services) to accommodate new developments, place a huge burden on the Municipality and the developer. Not only is services not readily available (time constraint), but to make funds available (public and private) for the installation of more and upgraded bulk services are a constant battle.

The Rural Development Strategy formed one of the building blocks for the refinement of 'Rural Areas' in this document. The Compaction and Densification Strategy, on the other hand, informed the Urban Build up Areas.

A spatial perspective has been developed for the rural precincts of the City of Tshwane in line with the principles of "Smart growth"

- Discourage urban sprawl and contain growth within the city limits
- Compact the city through infill and densification
- Improve the utilisation of existing infrastructure, services and facilities
- Preserve the rural environment and landscape
- Protect the rural assets and resources
- Protect agricultural land, especially high potential agricultural land
- Preserve the environments that promote tourism, recreation and nature conservation
- Assist urban regeneration by adopting an inward approach
- Protect cultural and tourism assets
- Give structure and form to the city (urban growth)
- Manage the re-shaping of the city towards a more sustainable outcome"

A Local Spatial Development Framework was completed for the Monavoni and Western Farms area. The Framework identified a Development Edge to restrict development up to the year 2020.

The areas to the west of the Development Edge are not interlinked with the urban system and are earmarked as “Future Urban Development Areas” with the emphasis on development after 2020 when a follow up framework will determine the land uses and the extend of services needed for the revised LSDF. The area to the north east of the Development Edge is underlain by dolomite and only low densities can be accommodated.

The timeframe for the proposed development of the Knopjeslaagte farm areas is envisaged to be triggered after the available farm portions to the east has been developed (3000 – 4000 ha). The land to the east of the north/ south Pretoriusrand Watershed must get preference in terms of policy recommendation and service provisioning. The Monavoni Agricultural Holdings, Stukgrond 382-JR, Honeypark 437-JR and parts of Mooiplaats 355-JR farm portions will be able to link up with the existing Municipal sewer works situated at Sunderland Ridge, subject to capacity constraints.

A Municipal sewer purification plant is planned to be constructed to the west of the watershed to provide sufficient connection to the proposed future development areas. Although previously permitted, the Municipality does not support the provision of private outfall works for development outside the development edge.

### 3.9 KEY ISSUES AND S.W.O.T ANALYSIS

In order to determine the key issues and development opportunities for the area a S.W.O.T. analysis for the region was done.

#### 3.9.1 STRENGTHS

- The Region enjoys excellent regional accessibility via the N1, N14 and R21 linking it to the economic areas in the south.
- This region connects the City of Tshwane with Johannesburg, the Oliver Tambo International Airport and Ekurhuleni Metro.
- The Region forms the southern gateway of the City of Tshwane.

- The Region is interrelated with major adjoining Metropolitan Municipalities within Gauteng and North-West Province.
- The Region has significant natural resources.
- The N1 development corridor/high technology belt is a major development strip in South Africa.
- The region is part of the Economic Core of the Gauteng Province and form an integral part of the “Smart Province”.
- There is a railway line passing through the eastern portion of the region.
- The Waterkloof Airport is a gateway for VIP travel.
- The Region accommodates well-developed, high quality residential areas.
- The Region has access to private sector investment.
- The Gautrain project plus Centurion Gautrain Station Precinct unlock economic opportunities.
- Super Sport Park complex hosting international sport and entertainment events
- The Region is in close proximity to airports and rail transport routes.
- The Region enjoys high levels of visibility.
- The Region is host to a number of strategic land-uses such as the Centurion Aviation Village.
- The Region has infrastructure to attract further Industrial and Commercial development.

#### 3.9.2 WEAKNESSES

- The current spatial structure is based on private vehicle transport, with a very poorly developed public transport system.
- The current railway infrastructure only serves the eastern part of the region although development is taking place towards the south and the west.
- The western part of the region is not sufficiently served by bulk infrastructure although this is the general direction of development.
- Underlying dolomite dictates the intensity of development as well as typologies.

### 3.9.3 OPPORTUNITIES

- The development of the Gautrain station in the Centurion Metropolitan Core area has improved public transport opportunities in the region and will unlock development opportunities and stimulate re- development of existing development adjacent to the precinct, including the Super Sport Park complex.
- Potential corridor development along the R21 will create new opportunities.
- The development of the PWV 9 will complete the ring road system around the metro and greatly improve accessibility at a regional level.
- High-tech industrial uses along the N1 development corridor will stimulate more high-tech economic opportunities
- Residential expansion in a westerly direction.
- African gateway convention and exhibition (AGCEP) precinct.
- The re-development of the Centurion Lake and surrounding areas to enhance the Metropolitan Core
- Monavoni Emerging Node Development.
- Irene Emerging Node Development
- Sunderland Ridge Industrial expansion.
- The construction of the West Avenue intersection with the N14 will unlock the Centurion Metropolitan Core for further development.

### 3.9.4 THREATS

- Rapid population growth with the provision of bulk services lacking behind.
- Uncontrolled and uncoordinated development outside the boundaries of the municipality, placing pressure on the internal movement system and engineering services of the region.
- Growth in a western direction could threaten ecologically sensitive environments.
- Underlying dolomite will inform development intensity towards lower density development or alternative land uses.
- Upgrading of Provincial Roads lagging behind development growth.

### 3.9.5 ROLE AND FUNCTION

813

The role and function within the Metropolitan context can be summarized as follows:

- Region 4 contains the mixed-use Centurion Metropolitan Core,
- It provides job opportunities to a large section of the metropolitan population.
- It is the area containing the highest intensity of land uses.
- Region 4 can be described as the high-tech heartland of the metropolitan area.
- Irene and Monavoni will in future support the Centurion Metropolitan Core as part of the larger poly-centric city.
- The Western Rural area of the region provides opportunities for tourism and rural development.
- The far western areas play an important role in the provision of regional open space in the metropolitan area with ridges and wetlands defining the area in the north and south.
- It holds as a resource large strategically under developed land parcels, which could in future accommodate effective focused development.
- To provide residential opportunities for all income groups and to accommodate new residential development in a sustainable form.
- To provide secondary and tertiary sector job opportunities in well-developed nodes and along development corridors.
- To provide open space within the metropolitan boundaries

### 3.10 DEVELOPMENT TRENDS IN REGION 4

In terms of buildings constructed between 2012 and 2015 the most development took place in Centurion Node and along the N1 corridor. About 120 000 m<sup>2</sup> retail was developed between 2012 and 2015 in Region 4.

### 3.10.1 TRENDS IN NODES

The Centurion node, in close proximity of the Gautrain station, experiences a large number of office development. This trend is expected to continue over the short term.

A large number of high density residential developments are under construction or planned around the Centurion Gautrain station. This trend is expected to continue on the short term and the density is increasing to about 10 storeys in terms of the new applications received.

The Centurion node, which is positioned within the development corridors linking Johannesburg and Ekurhuleni will be a major player in the proposed high intensity developments which are destined to take place in the region.

### 3.10.2 TRENDS ALONG CORRIDORS

The strip on the N1 between the Botha Avenue on/off-ramp and the John Voster on/off-ramp has seen a considerable number of office development between 2012 and 2015. The current development of the strip is expected to continue over the next 5 years.

Between 2012 and 2015 a large number of new warehouses/ offices were completed in the Brakfontein/ Louwlandia area along the N1 corridor. The R 21 corridor in the City has experienced constant development in terms of industrial and office development between 2012 and 2015. This trend is expected to continue.

### 3.10.3 TRENDS IN PREVIOUSLY DISADVANTAGED AREAS

The Olivenhout Plaza of 16 314 m<sup>2</sup> with 50 shops was completed in June 2013 and brought much needed retail to the area. Between 2010 and 2015, 2.5 billion Rand has been spend on low cost housing developments in the Olivenhoutbosch area. In August 2015 Government announced that a further 2000 units will be erected and the construction will start in September 2015 and be completed during the next 18 months.

### 3.10.4 TRENDS IN SUBURBAN AREAS

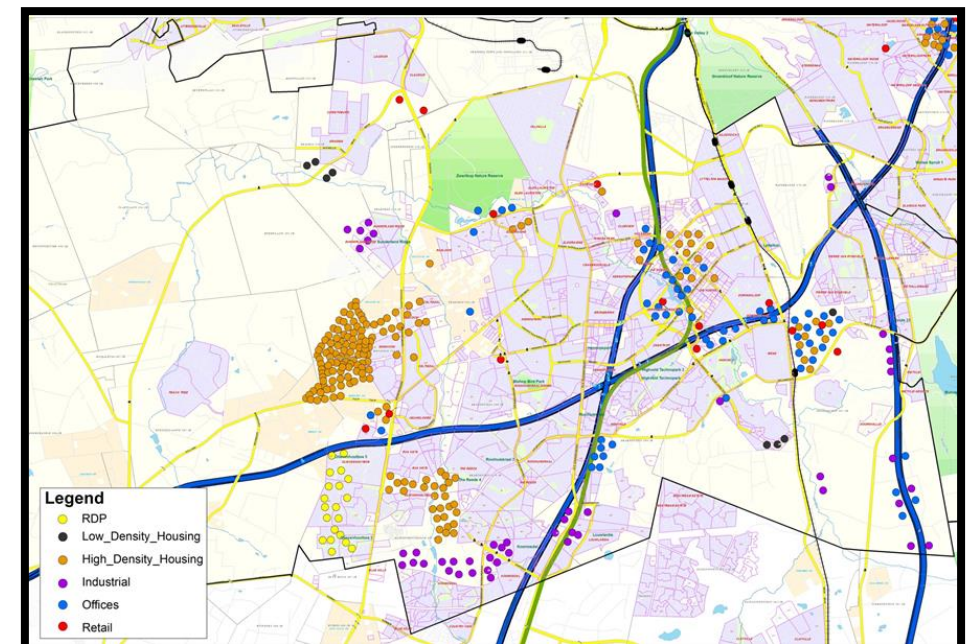
814

On the western side of Region 4, medium density residential development is taking place along the R55 between Olivenhoutbosch in the south and Sunderland Ridge in the North. A private developer is undertaking another mixed-housing development, worth approximately R5 billion, over eight years, and consists out of 14 000 housing units in the Monavoni area which includes 1 400 RDP houses.

### 3.10.5 TRENDS IN RELATION TO SPATIAL PLANNING

The trend of developing high density residential units in the Centurion node is in line with the new Centurion Node Urban Development Framework. The N1 corridor is developing according to the MSDF and RSDF. Further the proposed development is in line with the Provincial Planning.

### REGION 4: APPLICATIONS RECIEVED 2012 - 2015





## PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK

### 4.1 INTRODUCTION

The main development objectives for the region to fulfil its metropolitan role and function have been identified and are represented in the following development concept:

Region 4 comprises of two major environments namely the Urban Area and the Rural Area. Two main Metropolitan Strategies informs these environments namely:

- Urban Area – Tshwane Compaction and Densification Strategy
- Rural Area (forms an integrated part with Region 3) – Rural Development Strategy

These environments and its relevance to Region 4 are explained in more detail below:

### 4.2 URBAN AREA

- Metropolitan Node

The urban environment in Region 4 includes the urban core as illustrated and previously known as Centurion City and surrounding areas. Metropolitan nodes are high order activity nodes with a high concentration of mix of business, residential, social, cultural and other general activities that will ensure vibrant, 24-hour environments. The location of the Gautrain station, the redevelopment of the Centurion Lake as well as the proposed African gateway convention and exhibition Precinct, within the urban core will further enhance the strategic function of the area.

This core area is located between John Vorster Drive to the south and south-west, the Ben Schoeman (R28) to the west, the midblock between Jean – and Glover Avenue to the north and the mid-block between Leonie - and South Street to the east.

Residential densification is proposed for the areas within and surrounding the Metropolitan Core. High density residential development consisting of multiple storeys which will be seen as Legibility and Landmark Anchors should be accommodated on locations in line with the Centurion Nodal Plans. Medium and high density housing should be developed within walking distance from the Gautrain station (Transit promotion zone).

- Road System and Nodes

The road network and road interchanges within the Region must support planning and is an important mechanism to unlock development potential.

The urban lattice (development corridors along highways, mobility spines, mobility roads, activity spines and activity streets) offer alternative locations for amongst other retail and/or office uses. The road network should facilitate linkages between the eastern and western areas within the Region to support the development lattice. High intensity activity areas are located along major routes. Mixed use developments are encouraged which are in line with the character of the specific area and in line with the existing trend of uses and developments.

The activity nodes are areas of highest accessibility where both public and private investment tends to concentrate. The activity nodes offer the opportunity to locate a range of activities also in line with the character of the specific area and in line with the existing trend of uses and developments. A pattern of nodes forms the corner stone of the urban structure and movement patterns. The nodes of regional and/or metropolitan importance should be located on the urban lattice where various transport elements converge. Nodes should be distributed throughout the community and scaled in differing sizes. The concept of nodes is also directly linked to the importance of legibility and identity within the region.

Residential densification along the development corridors along highways, mobility spines, mobility roads, activity spines and activity streets are proposed at medium or high densities, subject to densities in line with the character of the specific area. Buffer uses along certain roads and medium density residential to the rear is supported in line with the character of the specific area and in line with the existing trend of uses and developments.

- Suburban Residential Areas

The larger area of the region consists of suburban residential areas. Residential neighbourhoods are set aside primarily for lower density residential development (Suburban densification zones) and should be attractive, quiet and safe environments for people to live in. The Suburban Residential Areas comprise a number of individual, usually introverted, residential neighbourhoods interspersed with neighbourhood related non-residential developments along identified activity streets.

The potential for moderate densification with due consideration of possible local constraints (e.g. geological conditions), is in line with the Compaction and Densification Strategy.

#### 4.3 RURAL AREAS

The western area (west of the proposed PWV 9 route) of Region 4 as well as the western and south-western parts of Region 3 is under pressure for development. The natural direction of growth can be attributed to the following:

- Spontaneous growth of Region 4 westwards
- The rural development axis between Johannesburg and the Hartebeespoort Dam (road P103-2).
- Lanseria Airport with economic activities
- Diepsloot and
- Olievenhoutbos

Large portions of this area consist of elements of environmental importance. These environmentally sensitive areas need to be protected as a major environmental resource of the city.

#### 4.4. GEOLOGY

The geological conditions in the region are predominantly dolomitic limestone formations (Dolomite) with Syenite intrusions and Granite areas to the south-western part of the region. Instability may occur natural but is expedited by many other orders of magnitude as a result of man's activities. The primary triggering mechanisms in such instances include the ingress of water from leaking water-bearing services, poorly managed surface water drainage and groundwater-level drawdown. Instability can occur in the form of sinkholes and dolines, and could result in loss of life and limb.

Virtually every land-use application will only be considered once suitable engineering-geological investigations have been undertaken in order to assess the risk of instability and likelihood of subsidence and sinkholes resulting in structural damage. Depending on the site specific characteristics and depth of the dolomite, and besides the fact that various mitigating measures have been applied in the past to manage risk, it has had a decisive influence on the typology and intensity of land uses.

Measures to prevent the concentration and infiltration of water, which seems to be the triggering mechanism for instability, have been applied with great success. By far the greatest number of occurrences of subsidence can be related directly to leakage water or sewer lines or the collection and infiltration of stormwater. The emphasis of preventative management of wet services and surface runoff has therefore proven paramount to risk management in the area. In order to facilitate development in this dolomitic area a scientific, multidimensional and consultative approach with an emphasis on dynamic and adaptive solutions sensitive to inherent constraints and tailored variables should be followed.

In the CBD area of Centurion including the Lyttelton Agricultural holdings proposed development should be primarily high density developments in the form of large multi-storey buildings. In the past a



proposed building of 30 storeys was not approved by the relevant geological authorities although a structural solution was acceptable for the conditions on the site. The risk for sinkholes surrounding the proposed structure on public areas was seen as a “possibility” should leakage or infiltration of water and sewerage occur.

However evaluation of the scale and maintenance of waterborne services indicate that the higher intensity land-uses present a scenario that can be managed with a significantly lesser degree of risk than a lower intensity scenario. Where responsibility of management is done on a collective basis, higher intensity uses actually contribute to reducing risk. In attempting to define an abstract concept such as “risk” scientifically, the answer is a dynamic definition incorporating inherent characteristics with operational impacts. Distinction must also be made between “risk” and “probability”

Probability implies the statistical chance for a certain event to occur within definable set of variables. In the case of dolomitic subsidence, such probability is the end result of depth of dolomitic rock, nature of overlaying material and intensity and frequency of concentration and infiltration of water.

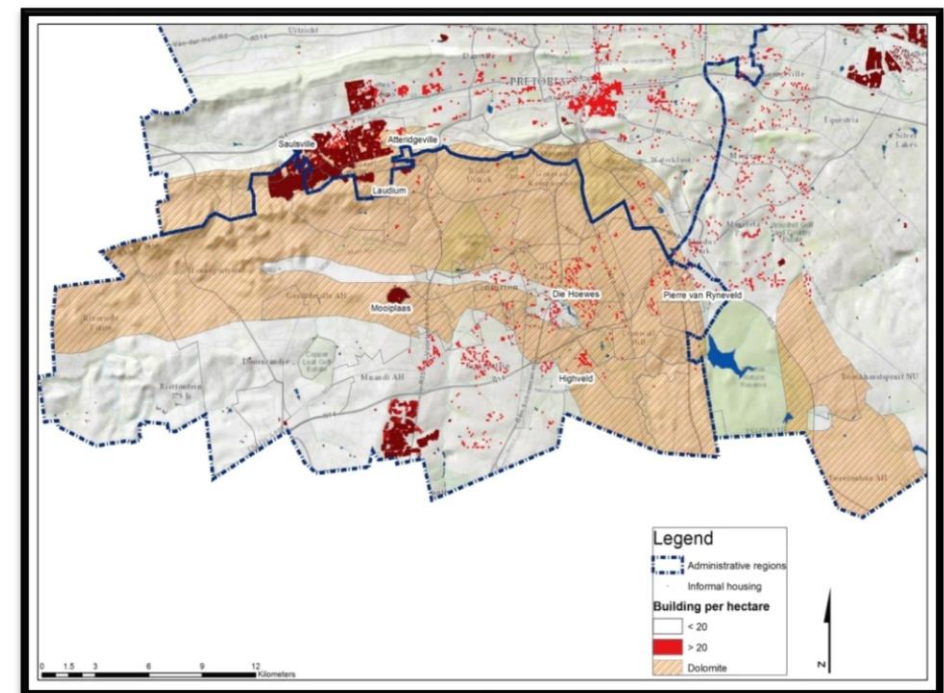
The concept of risk adds the operational dimension to any given set of probability determinants. Exposure of wet services and management and maintenance of such services in relation to specific land development proposals contribute to the final analysis of risk implied by such proposal in relation to such given probability.

For the purpose of formulating evaluation criteria for land development proposals applicable to dolomitic areas, it is therefore inadequate to assume a static stance on the concept of risk. Such evaluation criteria must recognise the dynamic nature of risk determined by different factors.

Consensus should be achieved regarding criteria for development within this area, based on uniform and scientific approach to constraints and a dynamic approach in respect of development guidelines. The biggest problem for market related development is

the scale of development allowed in relation to perceived danger of dolomite. The budget should be allocated to a project constituting an independent investigation for reinstatement of the rehabilitation approach to land development on dolomite underlain areas.

It must however be emphasized that any recommendations on land-uses and densities made in the RSDF, are subject to the site specific conditions revealed after drilling has taken place. Any recommendations on land-uses and densities made in the RSDF, will not overrule any other legislation relating to geological conditions.



#### 4.5 METROPOLITAN NODES / TRANSPORT ORIENTATED DEVELOPMENT NODES (TOD)



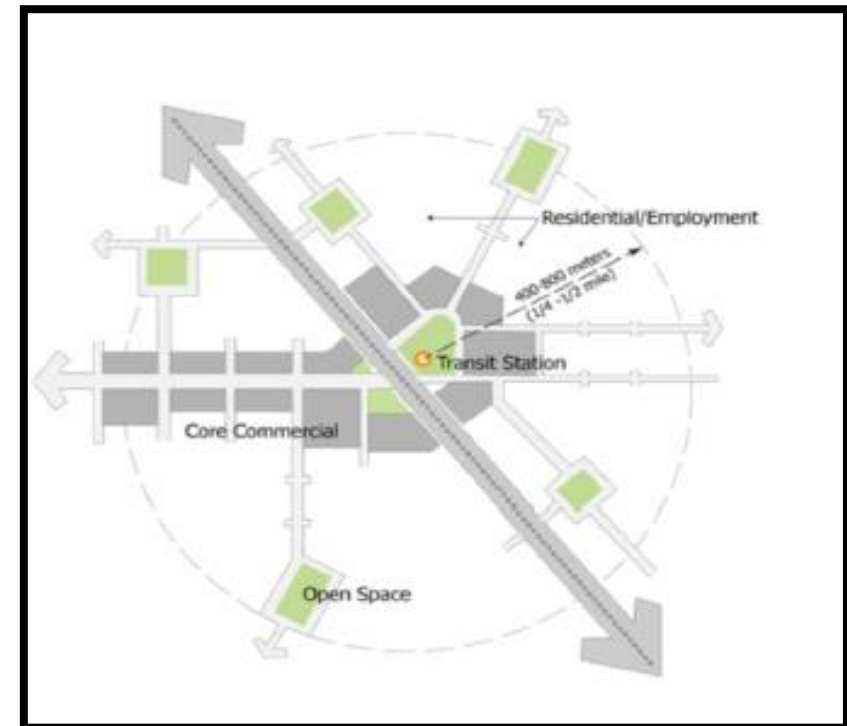
The Metropolitan Spatial Development Framework (MSDF) proposes a number of Metropolitan Cores / Transport Orientated Development and Urban Cores. The Tshwane Retail Strategy is also applicable to these nodal areas of metropolitan importance.

**Metropolitan Nodes-** these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Transit-oriented development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (train station, metro station, tram stop, or bus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs generally are located within a radius of one-quarter to one-half mile (500 to 900 m) from a transit stop, as this is considered to be an appropriate scale for pedestrians.

In terms of TOD it is important to provide a pedestrian –friendly environment, mixed use areas where the needs of the commuters and residents can be addressed in one place. Small business opportunities must be promoted around the stations and along the trunk route.

It is further important that the mix of landuses around the TOD should generate ridership at different times of the day. (Ideally 24 hours.) According to the recent SAPOA publication *Developing a Collective Approach to Mixed –use Development in Transit –Orientated Development Precincts* “place to work, to live, to learn, to relax and to shop for daily needs should be located as close to the stop/station as

possible. Transit non- supportive uses such as car sales, car washes warehouse, storage and low intensity industrial uses.



The following nodal areas are highlighted in terms of the MSDF:

##### 4.5.1 CENTURION CBD METROPOLITAN CORE

The Centurion CBD is a prominent focal point and regional node on the N1 Development Corridor and on local level on the Centurion Central Spine. It was planned and developed over time as a diverse precinct consisting of different character zones within the core area. It consists of a retail zone, entertainment zone, institutional zone, service retail zone, corporate zone, office zone, sport and recreational zone as well as a mixed use zone. A variety in urban

form is created through the reaction of development on various form giving elements, creating uniqueness and enhancing the identity of Centurion City.



The Centurion CBD will be more identifiable and legible as the major node and focus point for development in this region with the accommodation of the proposed African Gateway Convention and Exhibition Precinct, the redevelopment of the Centurion Lake, the further development of the Gautrain Station and the Super Sport Park, as well as future high rise residential and mixed use developments.

The scale and intensity of further developments as well as redevelopment in this precinct should be managed to enhance the functional and sustainable development of the core area.

Innovative ways in dealing with the dolomite geological formations in order to proceed with the higher intensity developments in this area should be investigated and negotiated.

The introduction of high density residential development in the form of multi-storey blocks should be encouraged.

The RSDF indicates a number of Emerging Nodes which are important on a regional and local level.

- Irene emerging Node
- Monavoni emerging node
- Erasmia/Claudius emerging node

#### 4.6 REGIONAL NODES / LOCAL NODES



The RSDF indicates a number of nodes (either existing or emerging) which are important on a regional and local level.

The extension of existing, well located nodes should however be encouraged before the creation of new nodes. As in the case of existing nodes, it is proposed that higher density residential uses be introduced as part of the node. It should also include social and community facilities.

Typically community centers and neighborhood centers should include both commercial and social facilities, such as retail facilities, schools, professional offices and community facilities, where such facilities are absent in the surrounding area.



For these nodes to function properly they should form part of a hierarchy of nodes, directly related to the characteristics of the population it serves.

The hierarchy of retail centers as proposed in terms of the “Retail Strategy” should be applied to the region, subject to need and desirability within the region.

### Summary of strategy

**Renewal Strategy:** In many instances retail facilities have become outdate, the increase in passing traffic has created a problem and in many instances parking facilities are inadequate. The revitalisation, upgrade and improvement of these areas should be encouraged.

Once a particular location or structure is no longer viable for retail purposes it is recommended that the structure be demolished and converted for other uses. This strategy will be driven by the decrease in return on investment in a particular area, large vacancies and the reluctance of retailers to move into a particular area. Urban decay, poor locations and unsafe areas will be the main problems to deal with. This should also form part of a broader revitalisation strategy for areas experiencing urban decay.

A renewal or upgrade strategy should also be followed by shopping centre owners. In most cases shopping centres are in need of a minor upgrade/major maintenance overhaul at intervals of 5 to 7 years.

**Maintenance strategy:** In certain cases shopping centres have become outdate and routine maintenance no longer effective and the upgrading or the redevelopment of the centre imperative. A maintenance strategy will mainly be applicable in already built up areas.

**Expansion strategy:** The change and growth in consumer demand in a particular area as well as new retail offerings will ‘force’ landlords to expand their existing retail facilities or to include new retail types. This is especially applicable in the case of regional and super regional centres, but can also be relevant for existing business clusters.

Most regional centres continuously expand to make provision for internal growth and to accommodate new retail concepts or trends. Cognisance should be taken of this particular need. This growth will mainly be driven by the already proven success of a particular centre, its location and the needs of the market.

**Infill strategy:** In this instance reference is made to infill in already built up residential areas where retail has been lacking or undersupplied. This type of development will then capitalise on an existing market and will prevent major outflows from a particular area to other shopping destinations.

The most important infill gaps currently exist in the traditionally black urban areas, although it is not necessarily restricted to these areas. There is currently major interest in the development of shopping centres in these areas, and development in these areas should be encouraged. The developments range from small neighbourhood to regional (large community) centres.



It is important to note that once the area is sufficiently serviced, the Infill Strategy must be replaced by the Maintenance and Expansion Strategies, and where new growth occurs, the Follow-the-roofs strategy.

**'Follow-the roofs'/ new growth areas strategy:** This strategy focuses on new growth areas and the provision of retail facilities once a certain threshold level of houses and disposable income is reached.

In the case of a 'follow the roofs' strategy, timing is of critical importance. Should a centre be built too soon the retail performance will be low and casualties, especially amongst the smaller tenants, will be high. Further growth in an area should also be such that the trade area of the proposed centre will fill up sooner rather than later.

**Nodal strategy:** Nodal or urban core strategy is applicable where larger retail facilities will create agglomeration advantages for complementary retail facilities. Urban and Metropolitan cores are those nodes or urban centres that fulfil a city wide function. These nodes are not stagnant and will expand over time. It is important that these agglomeration nodal developments take place in close proximity of small to super regional centres. Different types of retail facilities are on offer and not all can be accommodated in a traditional shopping centre. The best locational advantages of these complementary retail facilities are in close proximity to the existing regional centres. Other types of retail nodes where agglomeration benefits could be created could also be established.

The agglomeration effect is created by the catalytic nature of regional centres. The node will grow to include a variety of facilities and to reach a stage where the required tenant mix reaches the necessary critical mass.

**Modal interchange strategy:** This type of facility depends mainly on the nature of the commuters, the area as well as the different transport modes used. **Land uses in these areas should be focussed on transport orientated developments, with retail focussing on convenience and day-to-day goods.**

Higher density areas will therefore have a higher frequency of nodes in a smaller geographical area. The ideal locality of such nodes will have to be determined through retail studies taking into account all factors that could have a significant impact on the success of such a node.

To ensure that prospective applicants who intend developing retail facilities sufficiently address all aspects in their applications and are thoroughly briefed on all the requirements of the Municipality with regard to such developments, a pre-application consultation should be followed, where the following aspects will be addressed:

- Locational Requirements
- Urban Design
- Pedestrian movements (walkability)
- Parking requirements and layout
- Taxi ranks and public transport facilities
- Informal Trade
- Site development plans
- Retail and traffic impact studies.
- Impact on surrounding land uses

A feasibility study will be required for retail developments of greater than 4000 square metres.

## 4.7 JOB OPPORTUNITIES

### 4.7.1 HIGH TECHNOLOGY / MIXED USE AREAS

Apart from the core CBD area, areas for job opportunities will be focused around development corridor areas. These areas usually contain a high concentration of population and mixed land uses with the focus on high technology and consist of the following:

Areas around the N1 route considered with Samrand, Nellmapius, Brakfontein and Olievenhoutbosch Roads as the activity spines through the Kosmosdal, Louwlandia, Highveld and Irene suburbs. The corridor manifests primarily within the Midrand and Centurion areas and it is known as the high technology belt within the South African economy. The region falls within the Economic Core identified for Gauteng Province with the legs of the triangular core the N1 highway on the western side and the R21 with its linkage to the international airport on the eastern side. This economic core is the primary growth focus for Gauteng Province. The so-called high profile developments, such as office, finance and information technology related developments therefore tend to concentrate in Region 4.



### 4.7.2 INDUSTRIAL / MIXED USE AREAS

- A mixed use area with the focus on job opportunities in an industrial environment to be developed north and south of Sunderland Ridge and east of the proposed PWV 9 mobility spine .
- Industrial uses is to be developed north of Sunderland Ridge and the K103 route and east of the proposed PWV 9.
- An existing mixed use area with the focus on Service Industries is located east of Botha Avenue and to the north of the N1 (between R101 and the N1). This is an existing industrial area accommodating light industries and commercial uses.
- East and west of R21/ Nelson Mandela route where an existing industrial area (Route 21) consisting of high technology industrial uses have already developed.
- The Samrand/ Louwlandia areas , east and west of the N1 serve as a high tech/mixed use area consisting of big box warehouses, offices and Industrial 2 uses.

## 4.8 DEVELOPMENT CORRIDORS

The development opportunities offered by the N1 and R21 corridors are exploited by proposing linear development on both sides of the first order roads passing through the urban area of Region 4. First order roads in the development corridor are supported by lower order roads to provide access. Mobility and visibility is provided by first order roads and accessibility is provided by lower order roads.

- The N1 development corridor is supported by the R101 to the west and Olievenhoutbosch Road to the east. The focus of this development corridor is on the provision of job opportunities. Residential development could however be accommodated in focus areas along the corridor subject to the availability of supporting community and social facilities. Buffer uses along the



corridors and medium density residential to the rear is supported especially along the highways.

- The R21 development corridor is supported by Van Ryneveld Avenue in the west and Goedehoop Road in the east as well as the future Olievenhoutbosch Road which will provide an east-west link in Region 4 and beyond. This corridor area is situated on the farm Doornkloof 391 JR and is divided in two main portions by the Hennops River. The portion north of the Hennops River forms part of the Irene Emerging node, where various mixed land use developments is approved. The larger part of the farm Doornkloof 391 JR south of the Hennops river is mainly undeveloped vacant land which consist of unique natural resources and ecological focal points. The area forms part of the Sesmylspruit and Hennops river water drainage system and is characterised by a number of natural elements and cultural-historic areas. This linear open space system is continued to the north through the Irene Country Club, Southdowns Estate, Centurion Golf Estate, Super Sport Park and Centurion Lake. This open space system footprints through the heart of Region 4 and provides opportunity to create an active social public space where different facets of recreation usage can be developed and integrated to form a unique commodity for the City and its residents. The City's emergency boreholes as part of water provision are also situated in this area. The introduction of land uses for this area should complement, enhance and protect the ecological sustainability of this unique public space commodity. Development in this area shall be subject to the provision of municipal infrastructure with special reference to sewerage and storm water systems to prevent *inter alia* ground water pollution.
- Land uses foreseen for the area bounded by the R21 to the west and the Rietvlei Dam to the east will be a mix of different housing typologies, hospitality industry, entertainment and recreational uses. Office and high technology development, industrial, warehousing and commercial s may be considered on merits for the area wedged between the R21 and Sterkfontein Road. The introduction of Development Frameworks is of utmost

important to ensure high quality developments with urban design elements and architecture that will create an integrated urban form.

- To the north of the intersection of the R21 and the N1 directly south of Solomon Mahlangu Drive (K69), there is further opportunity for mixed uses which is complementary to the existing Aerosud as part of the the approved Centurion Aviation Village (CAV).
- The proposed PWV 9 together with the R55 will provide the necessary energy for the development of a third development corridor. The extension of Sunderland Ridge in a northern and southern direction to accommodate light and high-tech industries is proposed for this section of the new development corridor. The development of this corridor is subject to the construction of the PWV 9 and the feeder routes to the proposed highway.
- The extension of Sunderland Ridge in a northern and southern direction to accommodate industrial land uses is proposed for this section of the new PWV 9 development corridor.



N1 Corridor Office Development

#### 4.9 FUNCTIONAL ROAD CLASSIFICATION AND ACTIVITY MATRIX

The movement system in an urban environment is literally the arteries of the city – without these linkages there can be no economy, no inter-relatedness, and no “life”.

Movement systems can be used to create access, structure settlements, and promote integration, diversity and mixed land use. Movement (flows of people, finance, goods) defines the energy networks of settlements. Accordingly, more continuous lines of movement represent planes of greater accessibility and, therefore, become the more desirable connection for intensive use. Significantly, the energy potential contained in lines of movement is released through stopping, not through movement.

Different movement modes have varied patterns of stopping. Accordingly, they establish different rhythms of accessibility and the co-ordination of different modes enables certain points to be strongly reinforced.

By creating a complex and diverse pattern of accessibility, all activities, both large and small, can naturally find a place within the structural system, depending on their need for accessibility and their ability to pay for it. Movement systems, therefore, provide a powerful planning mechanism to bring about mixed, but broadly predictable, patterns of activity, provided activities are allowed to respond to them. Existing and future mass transport routes should also be integrated into this urban system.

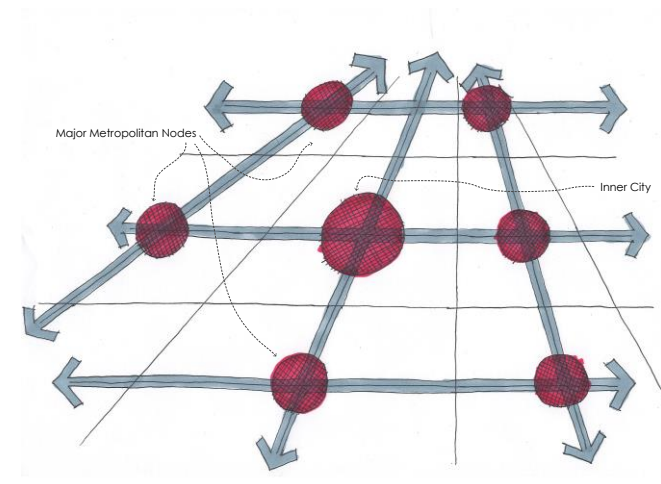
The movement system is an enabling feature of a city as it enables the free movement of goods and services through a region. Development trends are directly influenced by accessibility and therefore strategic planning with regard to movement is of utmost importance in the context of a growing metropolitan centre. Land use changes for the consolidation of even adjacent to existing nodes in residential areas will be considered on merit. Erven adjacent to roads that link such nodes with mobility or activity function within a residential area may be considered on merit. The merit will be evaluated in terms of the guidelines as set out in this chapter.

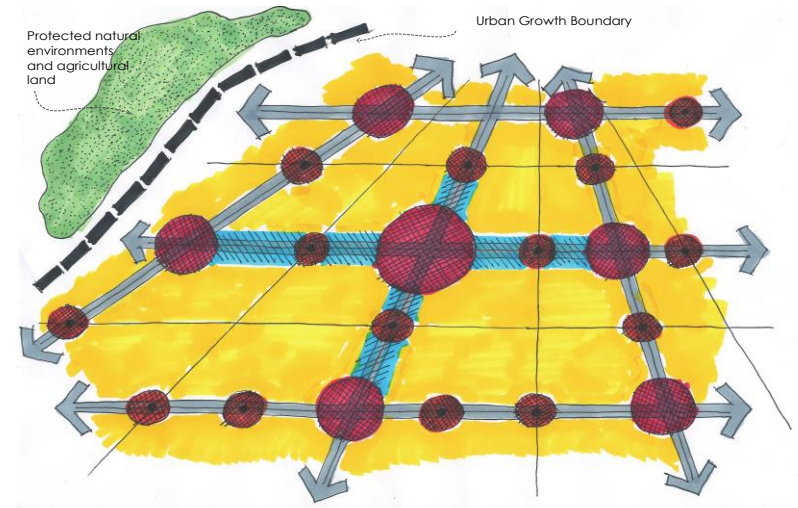
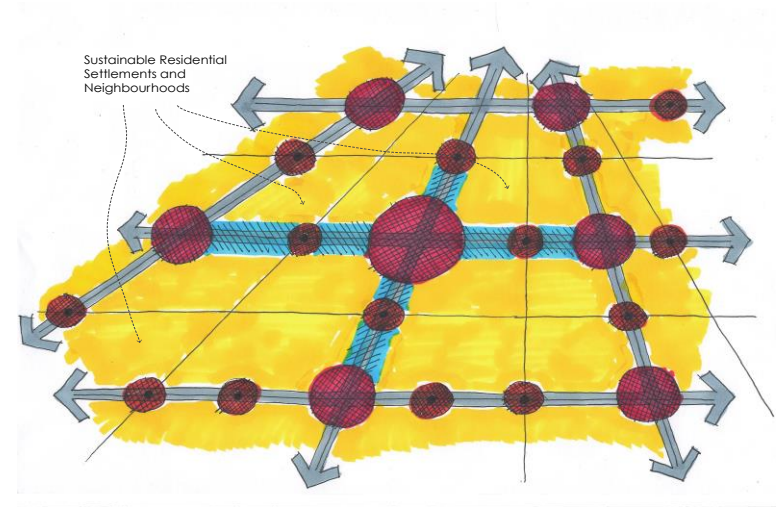
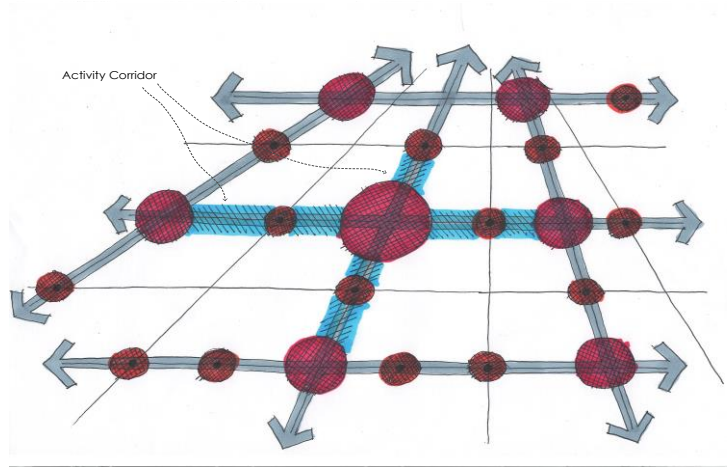
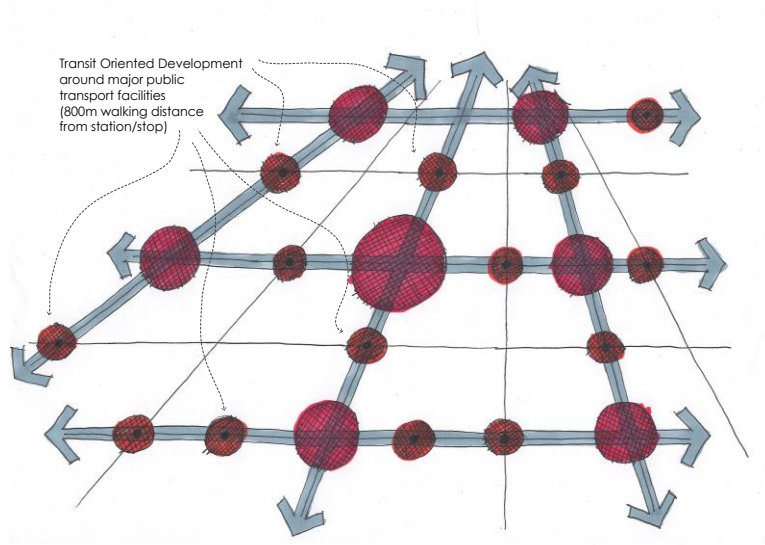
However, development along more sections of the spines should only be permitted subject to suitable access which would normally mean from internal roads. Development along the spines should only be permitted subject to access management strategies to protect the mobility function of these roads.

The Spatial Development Concept that underpins these Spatial Development Strategies comprise the following three fundamental spatial structuring proposals:

- Concentrating new development along public transport corridors;
- Concentrating new development in a network of major metropolitan nodes and Transit Oriented Development nodes
- Compacting the urban footprint and restricting the outward expansion of the municipality



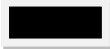
#### Spatial Concepts for Nodes and Corridors











- The interrelationship between a proposed functional road classification and an activity matrix is illustrated by the following table below:


Functional Road Classification	Land Use	Function and Design	Roads and Streets
<b>Highways</b>  <b>(Class I)</b>	<ul style="list-style-type: none"> <li>No Direct Access to land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Accommodate mainly national, regional and longer distance metropolitan trips.</li> <li>No traffic lights on these roads</li> <li>Access is restricted to the interchanges only.</li> </ul>	<ul style="list-style-type: none"> <li>N1 (Polokwane Bypass), N4 (Emalahleni Highway),</li> <li>R21 (Nelson Mandela Freeway south of Solomon Mahlangu Avenue),</li> <li>N14</li> <li>Proposed PWV 9</li> </ul>
<b>Mobility Spine</b>  <b>(Class II and III)</b> A Mobility Spine is an arterial along which through traffic flows with minimum interruption (optimal mobility). Much smaller than highways, Mobility Spines are usually made of two lanes of opposite vehicle flow.  It serves the purpose of inter-regional and metropolitan movement.	<ul style="list-style-type: none"> <li>Nodal Development at intersections.</li> <li>Mixed land uses at intersections.</li> </ul>	<ul style="list-style-type: none"> <li>Little (exception) or no direct access to land uses adjoining the spine. Access is usually through side roads and service roads.</li> <li>Involves inter-metropolitan and inter-regional routes</li> <li>No on street parking permitted</li> <li>Very few traffic lights</li> <li>Restricted pedestrian movement</li> </ul>	<ul style="list-style-type: none"> <li>K103 –Solomon Mahlangu Drive / Trichardt Road/Wierda Avenue (part of the Northern Development Spine)</li> <li>K54 – Proposed( part of the Southern Development Spine)</li> <li>R101 – Old JHB road</li> <li>R55 – Voortrekker Road</li> <li>M34 – Ruimte Road / Tulip Road</li> <li>PWV 6 - Proposed</li> <li>K52 - Proposed</li> <li>K46 / K103 / M26</li> <li>K27 – Hennopsriver Road</li> <li>K44 – Proposed</li> </ul>
<b>Transport Corridors</b>  <b>(Class II and III)</b>	<ul style="list-style-type: none"> <li>Mixed land uses at BRT stations.</li> <li>Mixed uses along sections of trunk route. Mixed uses to front onto trunk route.</li> <li>High density residential along corridor</li> <li>Nodal development with a mixed use character (developments concentrated at</li> </ul>	<ul style="list-style-type: none"> <li>Public –transport orientated – with the prioritising of public transport and Non – Motorised Transport over Private transport.</li> <li>Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate.</li> <li>Road space reallocation aiming to re-balance provision between private cars and more sustainable modes such as no motorised transport and the BRT.</li> <li>Limited accommodation for private cars on the Corridor.</li> <li>High accessibility for pedestrians.</li> </ul>	<ul style="list-style-type: none"> <li>IRTN routes in the future</li> </ul>

Functional Road Classification	Land Use	Function and Design	Roads and Streets
	intersections and around BRT stations)	.	
<b>Mobility Roads</b>  <b>(Class III and IV)</b> <p>Primarily serves intra-metropolitan traffic. While this route is characterised by through traffic, trends indicate pockets of mixed use developments locate alongside.</p> <p>It serves as the most important linkages between the Metropolitan Activity Areas (Capital Core/Metropolitan Cores/Urban Cores/Specialised Activity Areas)</p>	<ul style="list-style-type: none"> <li>• Medium to high density residential as per density map.</li> <li>• Nodal development with a mixed use character</li> </ul>	<ul style="list-style-type: none"> <li>• Limited direct access permitted (not frequent)</li> <li>• Services roads to enhance access opportunities</li> <li>• On street parking also permitted close to major intersections and in the vicinity of significant nodes only</li> <li>• Plays a collector and distributor function though trips are of a short distance</li> <li>• Pedestrian movement along the route in various parts</li> <li>• Public transport very important along Mobility Roads</li> <li>• Provide public transport facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Botha Avenue(K103)</li> <li>• Goedehoop Avenue</li> <li>• Hendrik Verwoerd Drive(part of the Central Development Spine)</li> <li>• John Vorster Avenue</li> <li>• K103 extension</li> <li>• K73 – Proposed</li> <li>• Knoppieslaagte Road</li> <li>• Lenchen Avenue / River Street(part of the Central Development Spine)</li> <li>• Mimosa Street</li> <li>• Mimosa Street– proposed</li> <li>• Olievenhoutbosch Drive and Nellmapuis Drive</li> <li>• Rabie Street / Cantonments Street</li> <li>• Rooihuiskraal Road</li> <li>• Tulip Von Melle Road- proposed</li> <li>• Van Ryneveld Road (North of the N1)</li> <li>• West Avenue (Refer to LSDF for Monavoni)</li> <li>• Brakfontein Road</li> <li>• K109</li> </ul>
<b>Activity Spine</b>  <b>(Class III and IV)</b> <p>These streets are characterised by slower moving traffic due to the nature of activity along the street (activity is of paramount importance, mobility is compromised to allow the activity). The street provides a focus for various non-residential and</p>	<ul style="list-style-type: none"> <li>• Mixed uses along the spine (refer to par 4.9.1)</li> <li>• Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>• Urban design guidelines important</li> </ul>	<ul style="list-style-type: none"> <li>• Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate</li> <li>• High accessibility to land and normally only gaining access from a service road.</li> <li>• Mixed land uses along service roads</li> </ul>	<ul style="list-style-type: none"> <li>• Botha Avenue (the section between Cantonments Road and River Road)</li> <li>• Cantonments Road (excluding the Lyttelton Manor Business Node and the retail centre on the south-western corner of the Cantonments/ Selbourne intersection)</li> <li>• Jean Avenue (North of South Street)</li> <li>• West Avenue</li> <li>• Hendrik Verwoerd Avenue/Lenchen Avenue (Central Activity Spine)</li> </ul>

Functional Road Classification	Land Use	Function and Design	Roads and Streets
medium to higher density residential developments that create a vibrancy and specific identity.	to guide the development along the spine.	<ul style="list-style-type: none"> <li>High density development with mixed uses must be promoted in suitable locations along these routes. On-street parking where appropriate.</li> </ul>	
<p><b>Activity Street</b> </p> <p><b>(Class IV and V)</b></p> <p>Local collector road within suburb, characterised by small scale (in keeping with the existing character of surrounding residential developments) local economic activities and social amenities</p>	<ul style="list-style-type: none"> <li>Low-intensity mixed land uses with a focus on community services and economic opportunities (refer to par 4.9.1)</li> <li>Low to medium density residential developments</li> <li>Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>Urban design guidelines important to guide the development along the street.</li> </ul>	<ul style="list-style-type: none"> <li>Characterised by low speeds (60km/h and less)</li> <li>Mixed land uses along service roads</li> <li>Must be provision for pavements</li> <li>Parking on site</li> <li>These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>Alexander (only erven in Doringkloof not Irene)</li> <li>Apiesdoring Road (part of)</li> <li>Clifton / Zircon Street</li> <li>Cradock Street (the section from Cantonments road up to Trichardt Road and excluding the Lyttelton manor Business node)</li> <li>Escourt Street</li> <li>Elephant Road (the section between the R21 and Orion Avenue)</li> <li>Golf Avenue (the service lane adjacent to the Old Johannesburg Road)</li> <li>Hekla Road (the section between Vindhella and Broadway East) - Valhalla</li> <li>Jean Avenue (The portion east of South street – Doringkloof)</li> <li>Korana Street (only between aster avenue and erven east of Erf 1129, Doringkloof x 1)</li> <li>Lyttelton Road (the section between the N14 Highway and the Old Johannesburg Road)</li> <li>Panorama Road (only from the Old Johannesburg Road up to Rooihuiskraal Road)</li> <li>River Road (only the section between Clifton Avenue and Botha Avenue)</li> <li>Ruimte Road (parts of Ruimte Road where service lanes are adjacent to or</li> </ul>



Functional Road Classification	Land Use	Function and Design	Roads and Streets
			<p>parallel with the mobility spine and access can be obtained from the mobility spine without entering the surrounding residential area.</p> <ul style="list-style-type: none"> <li>• The use of the service lanes is restricted in terms of an approved traffic impact assessment and access management plan as well as approval by Gautrans)</li> <li>• Saxby Road (the section between the Old Johannesburg Road and Ruimte Road)</li> <li>• Saxby Road between Ruimte Road and Wierda Road (subject to a traffic impact assessment and an approved access management plan)</li> <li>• Skilpad Street (the section between Elephant Road and Orion Avenue) Theuns van Niekerk Avenue (only south of Hendrik Verwoerd Drive, up to Rooihuiskraal Road)</li> <li>• Tulip Road</li> <li>• Van Ryneveld Drive (south of the N1 up to Nelmapius Drive)</li> <li>• Willem Botha Street (from the intersection with Hendrik Verwoerd Avenue up to the intersection with Wierda Road)</li> <li>• Pretorius Road (between River Road and Amkor Road)</li> <li>• Legong Street</li> </ul>
<p><b>Residential collector</b></p>  <p><b>(Class IV a and b)</b></p> <p>Local collector road within suburb, characterised by small scale social amenities</p>	<ul style="list-style-type: none"> <li>• Low-intensity community services and as per Council consent (refer to par 4.9.1)</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (50km/h and less)</li> <li>• Must be provision for pavements</li> <li>• Parking on site</li> </ul> <p>These streets serve primarily local traffic accessing the served area and feeds into</p>	<ul style="list-style-type: none"> <li>• As per map</li> </ul>

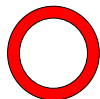
Functional Road Classification	Land Use	Function and Design	Roads and Streets	830
		arterial roads		
<b>Residential collector</b>  <b>(Class V)</b> Local road within suburb	<ul style="list-style-type: none"> <li>Residential Street</li> <li>Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>Characterised by low speeds (50km/h and less)</li> <li>Parking on site</li> <li>Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>As per map</li> </ul>	

#### 4.10 DEVELOPMENT GUIDELINES

##### LAND USES

The desired activity's along the activity corridors, streets and nodes is illustrated by the following notation and definition must be used as a guideline and must be read in conjunction with the Nodes and Corridor Map at the end of this section.

##### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)



Transit-oriented development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (train station, metro station, tram stop, or bus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs generally are located within a radius of one-quarter to one-half mile (500 to 700 m) from a transit stop, as this is considered to be an appropriate scale for pedestrians.

##### NODE



A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport nodes such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

##### EMERGING NODES



Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

### RETAIL



Areas of concentration of mixed land uses with the focus on retail

### MIXED USES



Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional ect. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. A mixed-use could refer to retail at street level, institutional on the floor above and residential on the upper floors, or only use per erf. Principles regarding retail, commercial and industrial uses / rights are still applicable as indicated in this document. Mixed land use in an industrial area could include industry, commercial and retail uses.

### OFFICE USES



Means land and buildings used as an office, retail industry, limited places of refreshment, fitness centre, hairdresser, nail bar, medical consulting rooms, medical workshops such as, dental technician, prosthetist, orthotist, pathologists, optometrist technician, or for other businesses such as inter alia beauty salon, pet salon, beauty/health spa, funeral undertaker, place of instruction, uses subservient to the main use. Uses must be compatible to the surrounding area and must focus on serving the local community.

## INDUSTRIAL USES



Light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

### GENERAL PRINCIPLES IN NODES, CORRIDORS AND MIXED USES AREAS

One of the main concerns for non-residential development and high density development within residential areas is the compatibility and interaction of land use changes to the abutting residential uses. The existing characteristics of an area and street plays an important role in the determination of land uses that is considered appropriate and are compatible with the residential component. The permitted land uses shall only be accommodated along the street up to the mid-block line of blocks running parallel to a street or adjacent service lane.

The following general principles are applicable:

- Encourage development characteristics that spread economic impact (Spluma, Objective, promote economic and social inclusion).
- A “walkable” environment- place commercial, housing, jobs, parks and civic uses within walking distance of the community and transit stops ( National Development Plan, GSDF, Principle)
- Encourage infill and redevelopment along activity streets corridors within existing neighbourhoods.
- A mix of residential, retail, commercial and community uses needed along activity corridors and streets. (Spluma, Principle 7(a) Spatial sustainability).
- Activity streets must be frontage streets, with emphasis on public interface.
- Locate jobs, retail and commercial near residences to reduce car dependence. (National Development Plan, GSDF, Principle)
- Encourage active interfaces between buildings and streets.
- Larger uses should locate at the edge of the circle allowing a fine grain mix of use at the centre
- Residential and non-residential uses combined within the same or adjacent blocks.
- Encourage vertical mixing of uses.



Source: City of Tshwane; West Capital Urban Design Framework 2014

The following criteria shall determine if a particular erf is suitable to accommodate a permitted land use change:

- Acceptable safe access possible
- Adequate on-site parking available
- Adequate space available for landscaping purposes
- Acceptable impact on residential component
- Site characteristics
- Availability of services

The following Development Guidelines shall be used:

#### HEIGHT

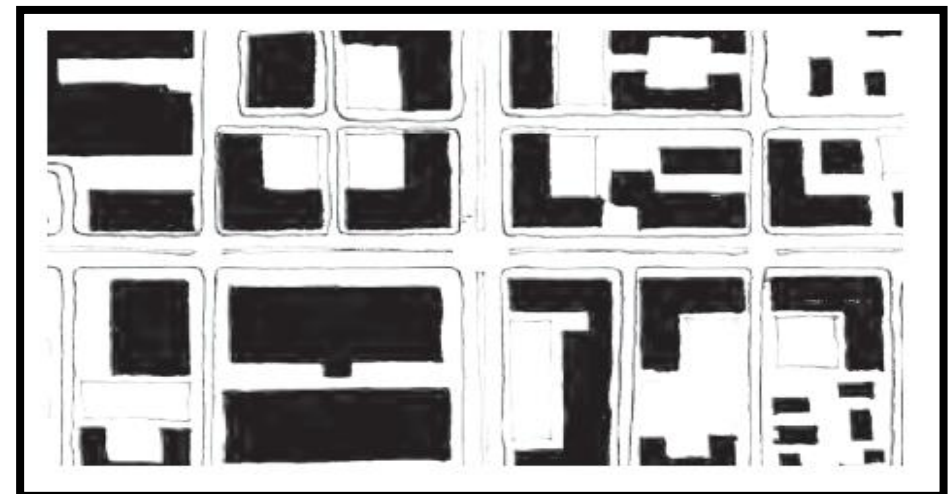
- 2 storeys or higher, depending on the locality and surrounding land uses.
- Relate building height to street width and intended character. Urban centres are characterised by a strong sense of enclosure with street spaces that are generally lined by buildings set along the front property boundary.
- Solar access to adjacent structures, situated to the south of a property to be developed, shall be protected through as far as possible from the adjacent structure.



Source: City of Tshwane: Centurion CBD Framework, 2013

- To ensure no overlooking, the following is applicable:
  - No balconies shall be established on the side of the building abutting a residential property.
  - Windows shall either be located at such height or distance from the boundary of a residential property, that they do not enable overlooking.

#### BUILDING PLACEMENT



- Building position is important in the development of the complete and liveable street concept.
- Buildings must be placed as close as possible on the street boundary.
- Building should be staggered along street boundaries in order to break long street frontages.
- Orient buildings to sidewalks
- Place buildings at the sidewalk (perimeter blocks)
- Street and building configuration should be designed to create vistas, or to terminate views with a landmark feature, building, or public spaces.
- Buildings at intersections within the corridor and activity street should provide for landmark features to celebrate the corners.

### **BUILDING LINES**

- Build to lines or minimum 2 meter building lines on street boundaries.
- Buildings must be placed as close as possible to the erf boundary adjoining street.
- Adequate side building lines should be imposed to protect the neighbouring residential component.
- The area within the building line should be used mainly for parking purposes and landscaping. Minimum 16% of the area should be covered with soft surfaces.

### **PARKING**

- All parking shall be accommodated on the erf
- No off-street parking shall be allowed.
- Off street only in TOD.
- Carports shall be located in such a manner that it is not visible from the street and shall form an integrated part of the design of the development.
- Soft landscaping shall form part of parking area
- Parking relaxations will be applicable in TOD and Corridors.

- Parking ratios per area and per application. 833
- Parking ratio's will depend on parking available.
- Discouragement of the use of private car must be reflected in the parking ratio's
- Reduced private parking
- Shared parking can be allowed regardless of whether the zoning ordinance requires any off-street parking, or whether public parking is available.
- Parking should be provided sub-surface as far possible.

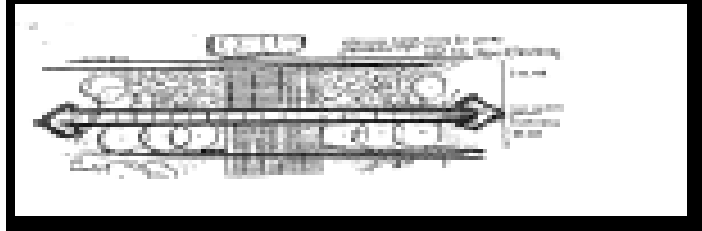
### **PHYSICAL BARRIERS**

- Walls abutting neighbouring residential properties shall be maintenance free on the side of the adjacent property and constructed in brickwork. The wall shall at least be 2,1m in height to offer more protection to the abutting residential activity. No prefabricated concrete walls are allowed
- A well designed and articulated boundary wall of brick should be constructed on the other boundaries of the site. No prefabricated concrete walls are allowed. The boundary wall should be minimum of 2 meters high and a maximum of 3,0 meters high and should be maintenance free on the side of the adjacent property;
- No pre-cast walls shall be allowed on street boundaries
- Physical barriers along the street boundaries shall be semi-transparent to enhance landscaping, architecture and aesthetics. Set back upper levels of tall buildings to help create a pedestrian scale at street level and to mitigate unwanted wind effects.

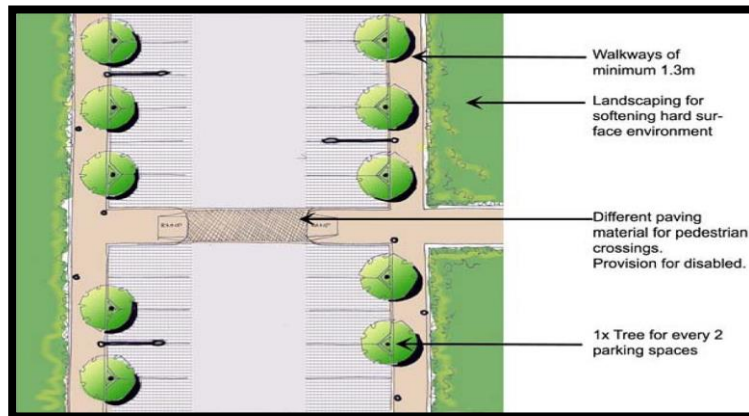


## LANDSCAPING

- Indigenous, endemic landscaping shall be incorporated.
- The road reserve between the erf boundaries and the street shall be landscaped in accordance with the landscape development plan. The landscaping should include design measures to prevent on-street parking and include a walkway (at least 2 m wide) to ensure pedestrian safety.



- One tree shall be provided for every two parking spaces.



## ADVERTISING

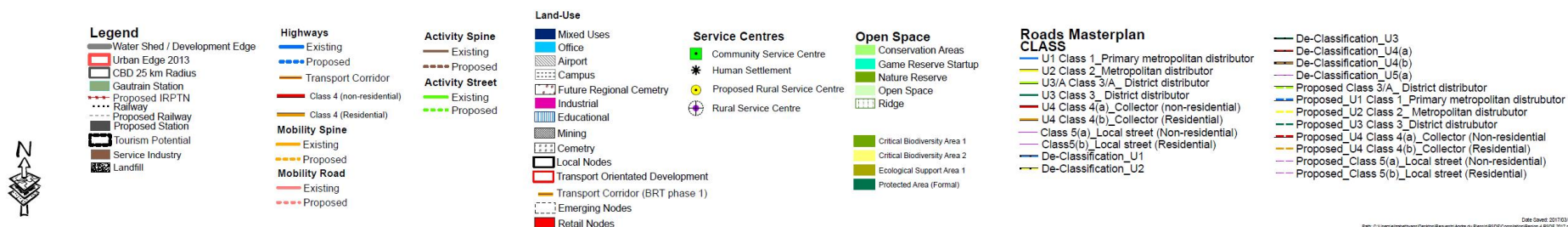
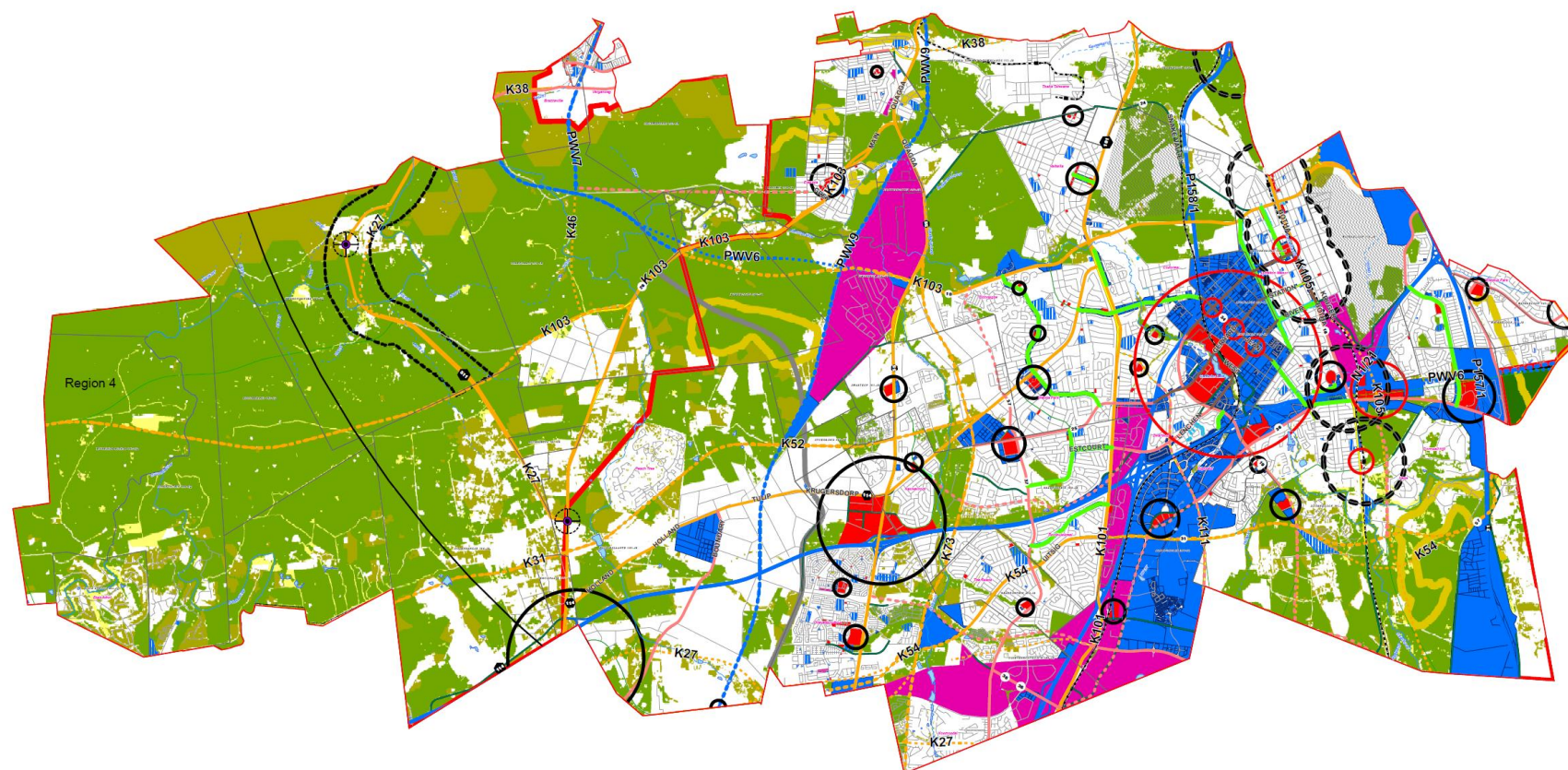
834

- Advertising shall be as per Council policy.

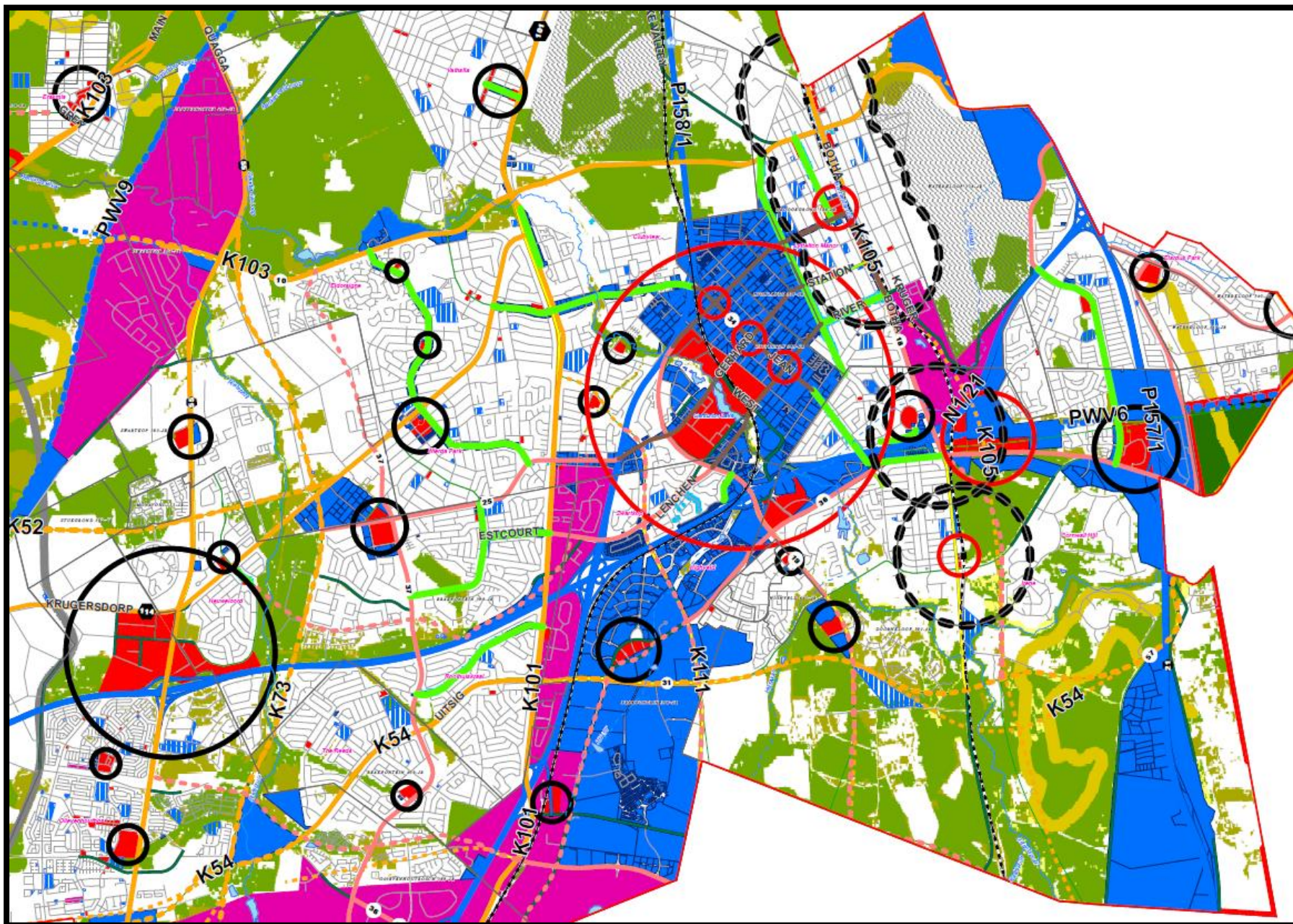
## HEALTH MEASUREMENTS

- Air-conditioning units or compressors shall not be mounted to the exterior walls of buildings without the prior consent of the Municipality.
- Any requirements for air pollution-, noise abatement- or health measures set by Municipality shall be complied with to the satisfaction of the Municipality without any costs to the Municipality.
- All refuse areas and service yards shall be screened off with a solid wall and /or landscaping. Refuse areas shall be placed as far as possible from any residential property.











## 4.11 RESIDENTIAL

### Current City Form of Tshwane

- Apartheid left South Africa a Fragmented Spatial Framework
- Urban Sprawl and dysfunctional urban form.
- Low densities mean that public transport cannot benefit from economies of scale.

### Solutions for Tshwane

- Reverse the spatial patterns of apartheid.
- Plan for compact cities and transport corridors.
- Compact cities – more infill and multi –story developments, mix of land uses.
- Density must be public transport orientated. - focus on commuter Rail and BRT.
- Integrate land –use planning and transport planning.
- Reduce the need to travel.
- Public transport must be prioritised over private transport.
- Embrace BRT's monorails, NMT, Pedestrians.
- Disincentives private car usage – reduce the number of vehicles on the road.

Residential development within Region 4 should be guided by the principles contained in the Tshwane Compaction and Density Strategy. The core principles of this strategy are:

- Density must contribute to the overall structure and functionality of the metropolitan area in that it takes place in a balanced, focussed, structured and meaningful way
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.
- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment

- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future
- Areas targeted for densification should be well served by social facilities such as education, open space, recreation etc. or should have the potential to be well served by social facilities
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Retain, enhance and encourage cultural assets
- Density's for old age homes and retirement centres, hostels and student accommodation will be evaluated on their own merits were location and accessibility to social infrastructure will play an important role.

Another important underlying principle of the Tshwane Compaction and Density Strategy, is that higher density developments should not merely be dictated by density, but that design and typology considerations should be of critical importance, as these are the factors that in reality make either a positive or negative contribution to the overall quality of the environment in which they are situated. Density and compaction is not an end in itself, but a means to achieve an overall efficient, integrated and sustainable metropolitan area. Density proposals within Region 4 should therefore not be done for the sake of density, but to achieve a range of other goals, such as :

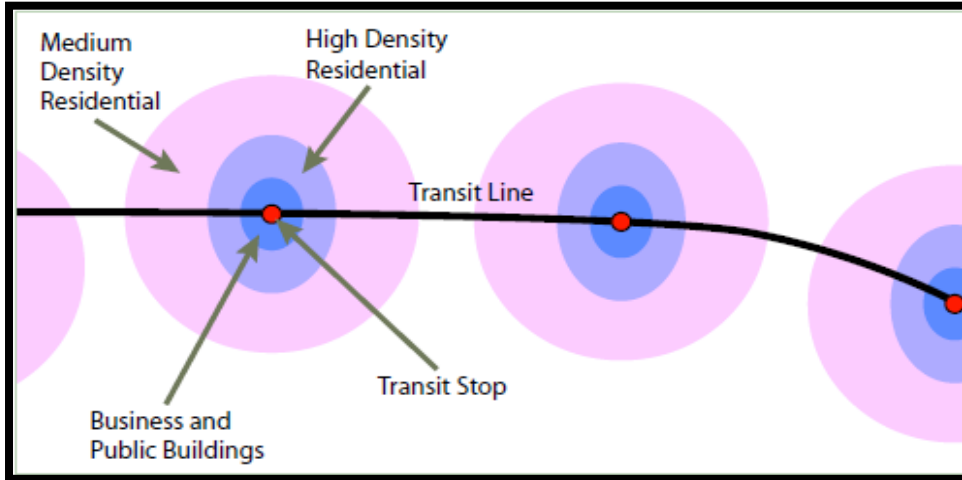
- increasing accessibility to public transport facilities
- creating the necessary population thresholds for economic growth and viable business development (especially small and medium sized enterprises) in specific areas
- minimising distances between home and work (i.e. integration of higher densities with employment opportunities)
- containing outward expansion of the urban footprint

The benefits of Density and Intensification :

- **Concentrations of people** in areas of high urban activity
- Access of people to opportunity increase
- Population threshold increases which means that a viable market for business and transport is established
- Density is significant for the economic performance of a city

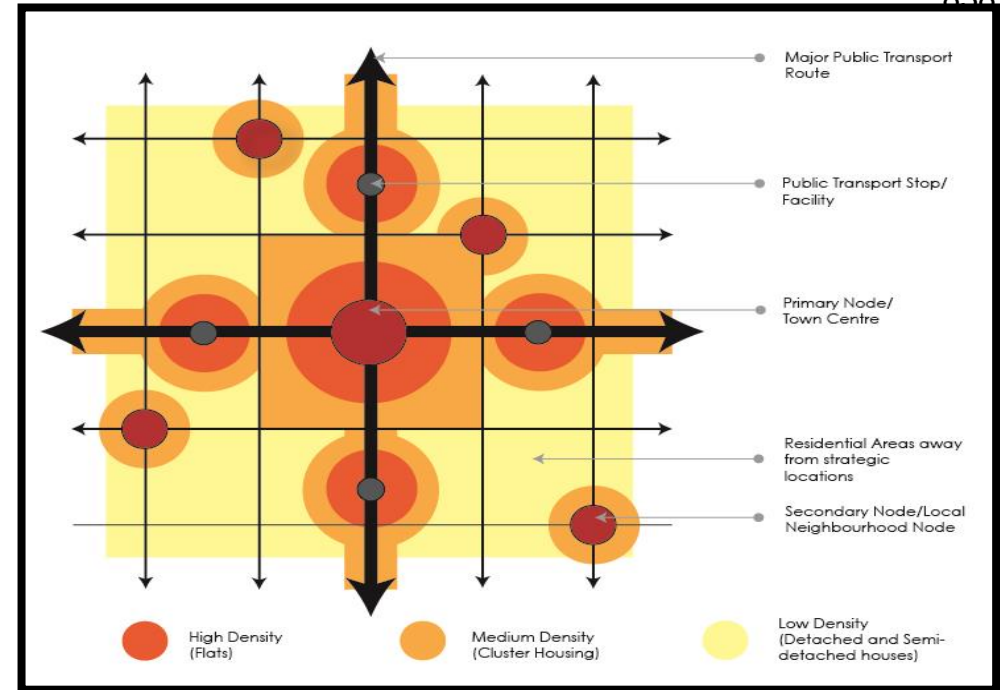
### Urban efficiency

- Travel distances and time
- Cost of Engineering Infrastructure
- Public transport becomes more viable
- High density assures the maximisation of public investments including infrastructure, services and transportation and allows efficient utilisation of land



The strategy proposes four key density zones, namely:

- Concentration Zones
- Linear Zones
- Suburban Densification Zones
- Low Density Zones



### Criteria for densification

Applications for densification shall be evaluated against the following criteria: proposed form of property, height, whether sufficient parking is available, privacy of adjoining owners, consolidation of stands and access, northern orientation, services available, and unit typology, size of the property, open space. Densification throughout the city will still be in accordance with availability of services and geological conditions such as dolomite restrictions.

Refer to the density map for a schematic illustration of densifications; it is important to note that walking distances to public transport will be applied in the evaluation of density applications. All densification applications should adhere to the above mentioned criteria and development guidelines as indicated as in 4.10



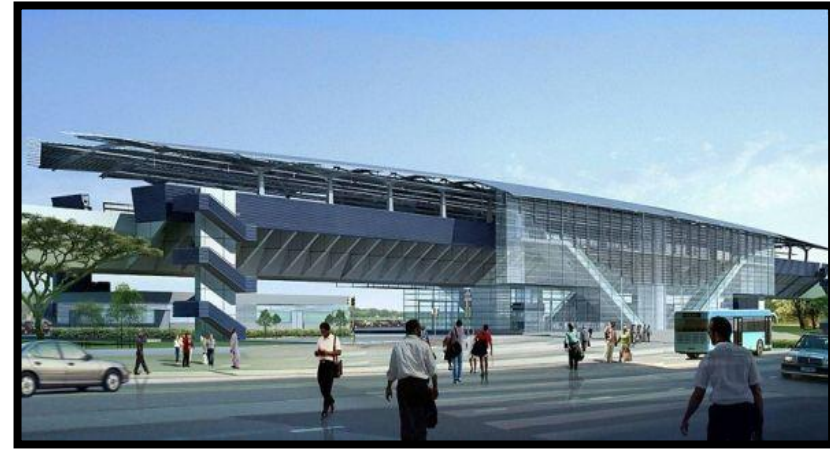
( Less than 500 m walking distance: density + 200 units/ha)

The **Concentration Zones** are the primary focus areas for high density residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

Residential densification is proposed for the areas surrounding the Metropolitan Node and Urban Core. This includes the Lyttelton Agricultural Holdings and Zwartkop x 7 area situated along John Vorster Avenue, Ben Schoeman Highway, Jean Avenue, Leonie (south of Jean Avenue) and South Streets. This High Density Zone is identified as the area which should be developed as a medium to high-rise residential area including a whole range of activities of high intensity.

As increased densification is needed to support a meaningful urban structure, more residential typologies should be introduced to the area. Within the Centurion Metropolitan Node, Legibility and Landmark Anchor buildings and Gateway buildings should be accommodated on strategic locations to be determined by an Urban Design Framework for the Core area. Higher densities can also be considered on portions of land bordered and linked to the different activity axis and promenade (central open space). High residential densities on the remaining land will contribute to reach the critical mass in order to make public transportation within this area viable.

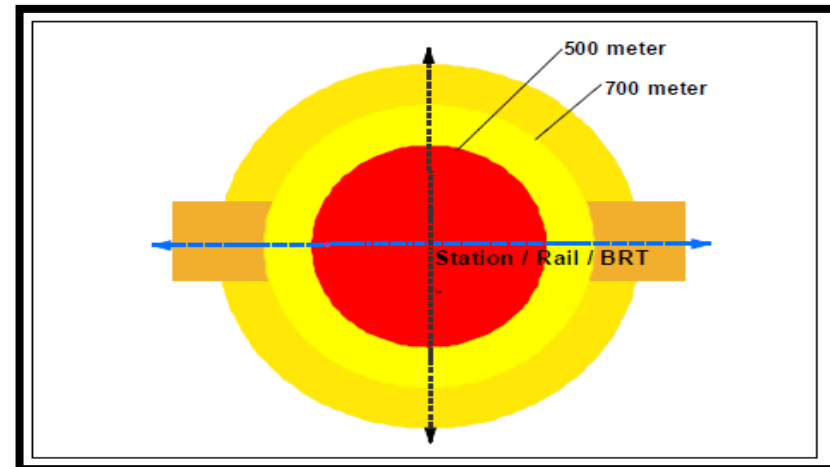
A number of strategic areas for focused intervention could be identified within the Core area, to be determined by an Urban Development Framework



**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within a 900m walking radius of a railway station or a major public transport node.



(500m up to 900m walking distance: density 120 units/ ha)



**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within a 700m walking radius of a railway station or a major public transport node. The areas around the existing Gautrain and PRASA railway stations and around the proposed BRT/ ITPN stations have been earmarked for higher density transit promotion zones. Densification should take place within a 900m walking radius of a BRT/ IPTN station. Densities of + 200 units/ ha in nodes and around rail stations will be applicable for the first 500m walking distance and up to 120 units/ ha for the area between 500m and 900m. The walking distances will be determined by the distance between stations. The closer the station are to one another the shorter the walking distances will be.



The concentration zones and linear zones call for a drastic change in the built environment in terms of densities, typologies, built form and urban design, moving away from suburban typologies in these areas toward a more urban fabric and typologies.

In Region 4 the areas around the 5 existing stations and 2 planned stations has been identified as Transport Promotion Zones. The areas around the existing Gautrain and PRASA railway stations and around the proposed BRT/ ITPN stations have been earmarked for higher density transit promotion zones. Densification should take place within a 700m walking radius of a BRT / IPTN station. Densities of + 200 units/ ha in nodes and around rail stations will be applicable for the first 500m walking distance and up to 120 units/ ha for the area between 500m and 700m.

Densities within Concentration zones should not be developed at densities of below 120 units per hectare or less than 3 storeys, unless other factors, such as unique characteristics of the existing built environment, historical and cultural elements, environmental, traffic or geological conditions dictates otherwise.

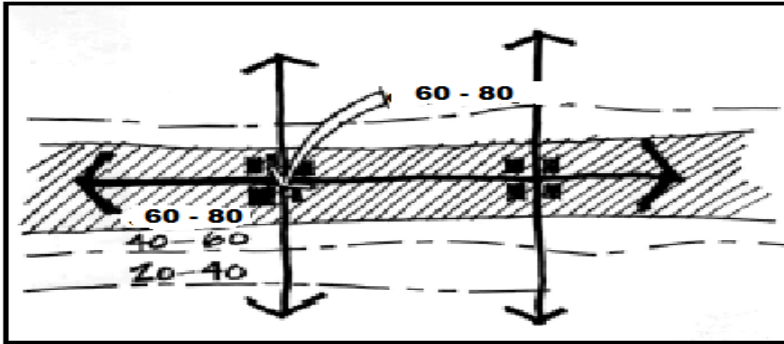
#### 4.11.2 LINEAR ZONES (CORRIDORS AND SPINES)



**(Up to more or less 200m walking distance from public transport: density up to 80 units/ ha)**

For the purpose of densification, linear zones refer specifically to high intensity activity areas that are located along major routes. The routes usually carry high volumes of traffic to areas such as Zones of Concentration and Transit Promotion Zones and thus encourage the feasibility of public transport on strategic routes. The linear zones also connect the urban core areas with one another within the City.





The identification of these linear zones should follow a focussed, selective and phased approach, where only the most important routes are identified in the short term. This is necessary in order to achieve a high level of concentration along each of these routes rather than dispersing development along too many routes, and then the critical mass for public transport viability is never achieved. In terms of the densification strategy, linear zones refer specifically to high activity areas that are located along major routes. The main aim of the routes should be to encourage public transport.

To promote public transport in the western part of the region, routes will be restricted to these three routes on the short to medium term. Densities of up to 80 units per hectare should be promoted along these routes.

The following areas are deemed existing or potential development corridors along the highways and mobility spines within Region 4 where mixed land uses with the focus on job opportunities will be supported:

- The R21 highway to the Oliver Tambo International Airport and the East Rand.
- N1 route considered with Olievenhoutbosch Road, known as the Centurion N1 economic Corridor area.
- The proposed PWV-9 highway that will be a major link between the western areas of the two metropolitan areas namely Johannesburg Metro and CoT.

In terms of the densification strategy, linear zones refer specifically to high activity areas that are located along major routes. Mixed use development should be encouraged along its length as appropriate in the context of the precinct.

The following **east west** development spines along mobility/activity routes can be identified as the main constituents of the Urban Lattice:

The following east-west spines are:

- The Northern Mobility Spine follows the K103 as an extension of Solomon Mahlangu Drive/ Trichardt Road/ Wierda Road
- The Central Activity Spine does not fall on a single road and the alignment thereof is based on the east-west extension of Hendrik Verwoerd - and Lenchen Avenues through the Centurion Metropolitan Core
- The Southern Mobility Spine is located between the R21 Highway following the proposed K45 and Nellmapius Road and Uitsig Road

The **north-south** development spines can be identified as:

- R55
- K111
- K109

Densification along the development spines along mobility and activity routes and streets are proposed at medium densities. The current practice of providing buffer uses along the street interface and medium density residential to the rear is supported. Access should be arranged according to an access management system to protect the mobility function of activity spines.

It is proposed that more than a single erf depth be used to accommodate densification along activity spines to permit space for proper planning of such developments.

### 4.11.3 SUBURBAN DENSIFICATION ZONES



(density 10 – 25 units/ ha)

Suburban Density Zones are those existing suburban areas where there is potential for moderate densification because of the area's strategic location within the city (within a 25 km radius of the City). This zone makes for good application in areas that are close to places of employment, major retail centres and prominent transport routes, but where it is still desirable and warranted to maintain a suburban character. These areas are indicated in yellow on the Densification Map. The maximum density in these areas will be restricted to a maximum 25 dwelling units per hectare. The exceptions will be the nodal / core areas (as indicated on the densification map) within the suburban areas where densities of up to 200 units / dwelling-units per hectare can be supported depending on available public transport and social amenities. Activity streets in suburban areas as indicated in the RSDF also earmarked for densification up to 80/units per hectare.

Whereas the Concentration and Linear Zones propose a particular urban environment, both the Suburban Density Zone and the Low Density Zone are distinctly suburban zones.

Within Suburban Density areas the core principles of densification are:

- Densification must contribute to the provision of lifestyle choices within the specific area. As an example provision must be made to sustain all the lifestyle phases from young working people and students, families with young children, and elderly people.
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.
- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment.

- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future. Pedestrianisation must be included into the densification process.
- Areas targeted for densification should be well served by social facilities such as education, place of public worship open space, recreation etc. or should have the potential to be well served by social facilities. Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase.
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Encourage community and stakeholder collaboration.
- Retain, enhance and encourage cultural assets

The various housing and densification typologies must be employed in a structured manner within this Zone, with cluster housing and apartments located adjacent to strategic points within the neighbourhood such as local nodes, public transport facilities on a major public transport route, education facilities and parks. These developments shall be subject to urban design principles and site development plans.

The various housing and densification typologies must be employed in a structured manner within this Zone, with cluster housing and apartments located adjacent to strategic points within the neighbourhood such as local nodes, public transport facilities on a major public transport route, education facilities and parks. These developments shall be subject to urban design principles and site development plans. Sustainable neighbourhood planning seeks to achieve long-term socially, environmentally and economically viable communities. The main objective is to create pleasant, safe and sustainable residential neighbourhoods with a mix of residential typologies, community and social facilities, recreation areas such as parks, sports fields and playgrounds, access to public transport for those who need it, and local economic opportunities.

*"A successful and sustainable neighbourhood is a product of the distances people have to walk to access daily facilities, the presence of a sufficient range of such facilities to support their needs, and places and spaces where a variety of activities can take place."*<sup>1</sup>

<sup>1</sup> Source: Homes and Communities Agency: Urban Design Compendium 1

In essence, within this zone the urban form remains the same as it currently is, only with an increase in general density and a change in typology and density around strategic points within these areas.

Greenfields development (farm portions and small holdings) will be handled on merit and the general principles of density will apply.

#### 4.11.4 LOW-DENSITY ZONES



(up to 10 units/ ha)

Low Density Zones are so called because those are the areas in the city where lower densities are actually more desirable, either because of location or *bona fide* special circumstances. The majority of these zones are the peripheral areas that are removed from opportunities such as economic and employment nodes and mass transportation opportunities and is characterised by long travelling distances to areas of employment. In these areas, higher densities serve no purpose or could actually be detrimental to the functionality of the city, and it is preferable not to encourage population concentrations in these areas.

The Low Density Zone however also includes areas that are more centrally placed, but which have special characteristics that need to be preserved, and hence a low density is considered justifiable. These include areas along ridges, where lower densities are more conducive to a built form that is sensitive to the ridge quality from a visual point of view, including issues such as skyline, further spacing of buildings etc. These low density areas will also serve to provide visual relief in between adjoining higher density areas. Ideally, a Low Density Zone's density should not exceed 10 dwelling units per hectare. Encouraging low densities in these areas are also important to ensure that the higher densities are directed and actually take place where they are desirable and required.

#### 4.11.5 RURAL DIVISIONS



Divisions of farm portions and agricultural holdings will be according to the densification map. The basic principle applicable will be that division of up to 1 ha and more will allowed in areas with Council approved piped water. Divisions of 5 ha and more will be supported in areas without piped water except in cases of high agricultural potential and environmentally sensitive areas. Divisions must take flood lines and water courses into account when applied for.

Notation	Size	Services
	5000 m <sup>2</sup> (No second dwelling unit allowed)	Piped water
	1 ha	Piped water
	2 ha	Piped water
	4ha – 5ha	Piped or Borehole Water
	8.5 ha	Piped or Borehole Water
	10 ha	Piped or Borehole Water
	+20 ha	Piped or Borehole Water

## 4.12 SUSTAINABLE HUMAN SETTLEMENTS

Sustainable Human Settlements should be provided in accordance with the guidelines as set out in the above Tshwane Compaction and Densification Strategy. Such settlements should be developed within concentration zones and along linier zones with the supporting densities as prescribed. Further human settlements should be provided in close proximity of social amenities and public transport.



Olievenhoutbos, urban design Framework

### 4.12.1 INFORMAL SETTLEMENT UPGRADES AND RELOCATION

In Region 4 about 20 000 informal units exist and need basic services.

- Existing informal settlements that fall outside of the urban edge should not be provided with in-situ upgrading. They should rather be relocated
- Informal settlements should only be relocated to areas that geotechnically sound and do not fall within a flood line.

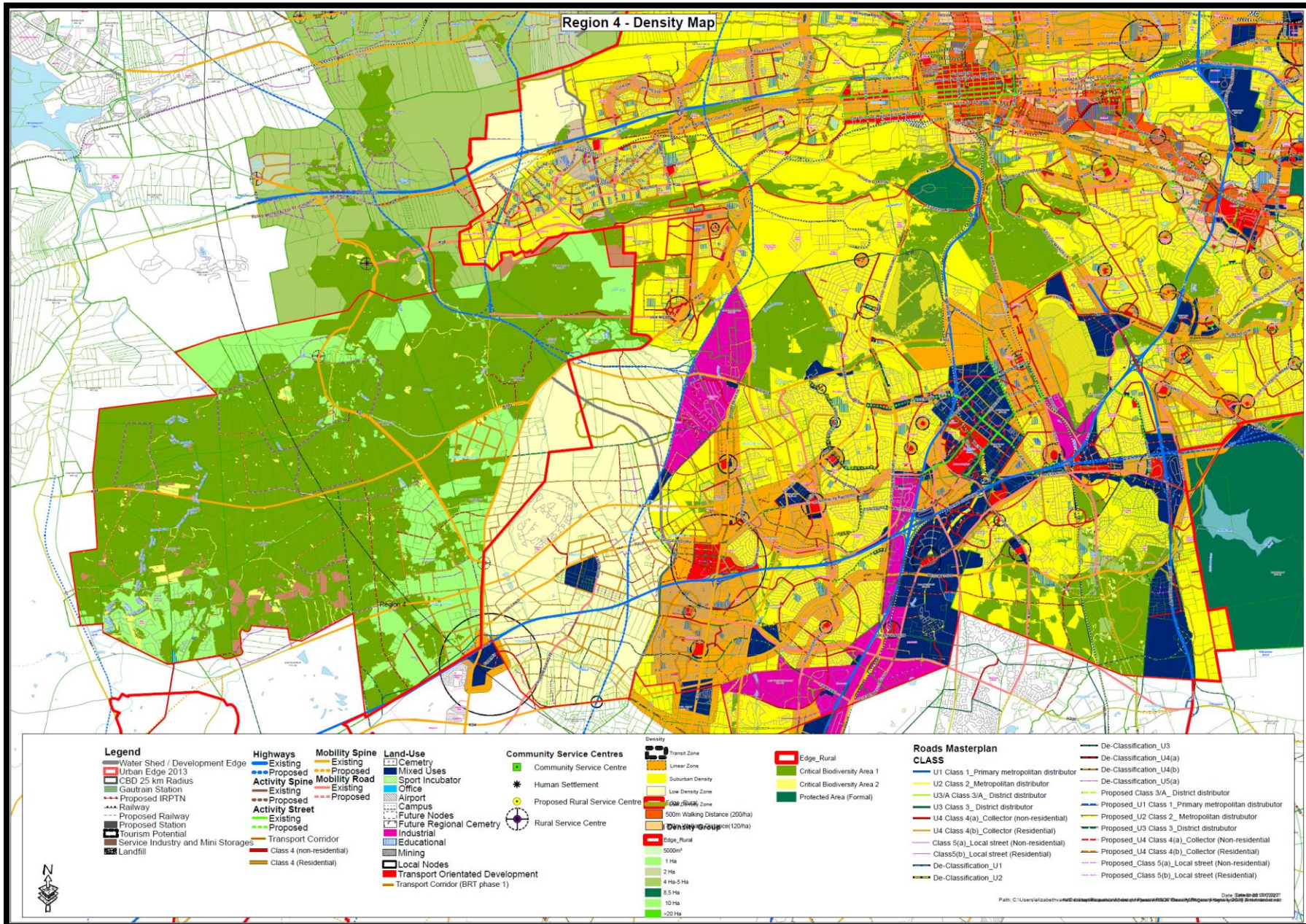
- Compaction, infill and densification should serve as key guiding principles for both in-situ upgrading and relocations.
- Informal settlement management plans should incorporate landscape planning

### 4.12.2 SOCIAL HOUSING

- Housing should provide a range of typologies within strategic nodes in order to address both social and economic restructuring
- Housing typologies should allow for diversity and significant densification in order to address the green economy of spatial planning
- Brownfield development is preferable to greenfield development in order to achieve infill development,
- compaction and rejuvenation of decaying areas (where applicable)
- Housing location should be targeted towards significant places of work opportunity, i.e. metropolitan nodes and primarily and urban cores
- Housing developments should include the provision of or be located next to safe and efficient linkages with space for pedestrians and cyclists.
- Housing location should be well planned to ensure connectivity via public transport to other places of significance in the metropolitan area
- Urban design, landscaping and streetscaping should be incorporated in housing schemes
- Social housing should be an effective component of sustainable human settlements i.e. providing or being located close to social amenities and facilities
- Mixed-use residential buildings should be implemented where possible, allowing for an optimal use of all available resources, supporting transit-oriented development and providing a sustainable living environment

Movement and Connectivity for more information on transit oriented development). Transit-oriented development supports the concept of the 20 Minute Neighbourhood.







#### 4.13 MOVEMENT SYSTEM

During the development of the RSDF's the spatial location of proposed land uses is considered. It is essential that the transportation network and services can support the land use proposals. Therefore, a strategic assessment of the transportation needs was undertaken to identify possible transportation system interventions and refinements. The proposals are intended to serve as a point of departure for further more detailed feasibility studies.

##### 4.13.1 Highway Planning Projects of a Strategic Nature

There are currently several important strategic road links that are needed and justified. Some of these are planned to be implemented using public and private funding in partnerships. In Region 3 the following strategic projects are indicated: There are currently several important strategic road links that are needed and justified. Some of these are planned to be implemented using public and private funding in partnerships.

The following projects have been identified:

- **Olievenhoutbosch Road** – the eastern link from the R21 highway to Alexandra road in Irene
- **Lenchen Road** - 2<sup>nd</sup> carriageway from Old Jhb Road across the N14 to John Vorster Drive (including bridge)
- **West Avenue** - Build portion of West avenue and West avenue off-ramp
- **John Vorster** - Extension of the John Vorster dual carriage-way from Hendrik Verwoerd Drive up to the proposed West Avenue intersection with the Ben Schoeman (N1

Upgrading of intersections:

- **Ruimte Road (K52) and Willem Botha Street** - Ruimte Road is regarded as a major north-south transport route in terms of the RSDF and the Tshwane Integrated Transport plan of 2007. It is a major link between Johannesburg and Tshwane in general, with several

developments along this corridor. Willem Botha Street is an activity street and requires a functional intersection with Ruimte Road.

- **Nellmapius Drive (K54) and Main Road** - The existing traffic situation at this intersection is of great concern, although the construction of Olievenhoutbosch Road is in process, the bridge construction alone might take another 5 years, in which time, this particular intersection will be under additional stress
- **Rooihuiskraal Road and Panorama Road** - Rooihuiskraal Road is an important north-south mobility spine in the area and a major link between the northern and southern suburbs and business nodes of Centurion, with several developments along this corridor. Panorama Road is also an activity street and requires a much improved intersection with Rooihuiskraal Road.
- **Ruimte Road (K52) and Rooihuiskraal Road** - Both these transport corridors fulfil an important regional function in terms of accessibility and mobility. Ruimte Road itself has been upgraded in this part and future upgrades of the intersection with Rooihuiskraal Road will depend on the functionality of the existing situation and future developments.
- **Old Jhb Road (K101) and Wierda Road (K103)** - Both these transport corridors fulfil an important regional function in terms of mobility. As a result the intersection of these roads is regarded as very important from a traffic flow point of view. The current situation is not desirable and the upgrade of this intersection and its capacity is highly recommended.
- **Wierda Road (K103) and Ashwood Drive** - This intersection plays an important role in supporting the intersection of the Old Johannesburg Road and Wierda Road. It also caters for the east-west flow of traffic throughout the area, as well as from Lyttelton Road via Ashwood Drive. It should therefore be upgraded to a level which will be in line with the function of the other regional transport routes in the area.
- **Old Jhb Road and Panorama Avenue** - The Old Johannesburg Road is a very important north-south corridor in the Tshwane area, providing a link to the greater Johannesburg as well. Intersections with the transport routes should therefore be optimized, especially with Panorama Avenue being an activity street. This intersection requires serious attention in order to alleviate the current situation. Provision for



public transport facilities, including taxis, should also be incorporated in the planning.

- **West Avenue intersection and Ben Schoeman Highway (N14)**
- **West Avenue and N1 Highway half intersection**
- **Hendrik Verwoerd Drive and Ben Schoeman Highway half intersection**

For the unfolding of major development opportunities in the Centurion Metropolitan Node area, the “traffic box” around the Metropolitan Node need to be developed and accessibility needed to be increased by the provision of these three intersections as a priority:

A number of provincial road projects of a strategic nature are required in Tshwane. The priorities for implementation in the Region 4 are:

- K54 to the south of the region
- PWV9 along the western boundary of the built-up area
- Old Johannesburg Road (R101)

In a metropolitan context these projects are significant. The PWV9 road would complete the “ring road” and improve the accessibility of the regions to the north of Tshwane with Johannesburg. It would also open up the western areas in the city for further development and opportunities. The doubling of Old Johannesburg Road (R101) between Eufrates Road and Nellmapius Road has also been identified as a strategic project.

In terms of the Integrated Transport Plan (ITP) the following road network projects have been listed:

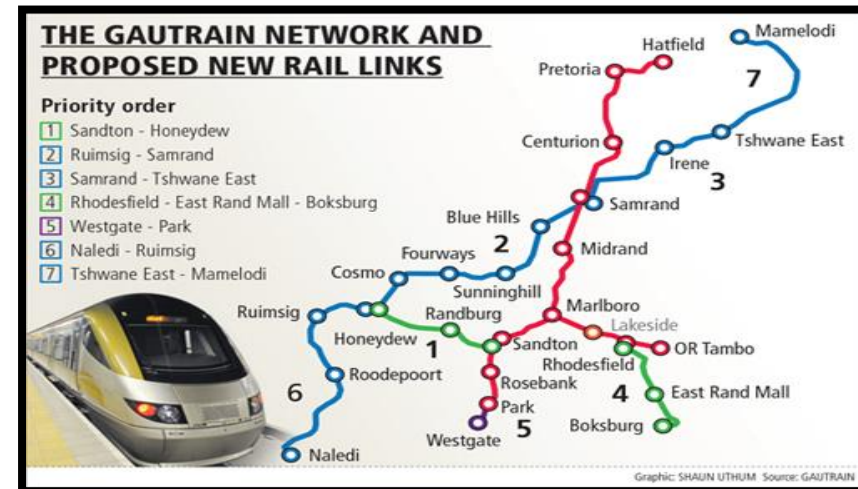
- Rooihuiskraal Interchange on the N14
- Olievenhoutbosch Road (Rietvlei Dam Interchange to Brakfontein Road)

#### 4.13.2 Rail

##### Gautrain

The Gautrain is serving the Centurion Metropolitan Core directly. The future planning of the Gautrain rail alignment allows for a station to be

constructed in the vicinity of the Rooihuiskraal interchange. This intermodal facility can serve the rail/BRT from the east of Tshwane and can be extended to Olievenhoutbos or beyond, thereby contributing significantly to the creation of an integrated transport system.



#### Passenger Rail Agency of South Africa (PRASA) network planning proposals



PRASA priority corridor in the next 5 years in Gauteng is the Mabopane/ Johannesburg/ Soweto line. Upgrading of the line in Region 4 is in process. The proposal includes upgrading of the capacity in terms of rolling stock and lines. New stations are also planned within this upgrading phase.

PRASA gave an in principle approval for an additional rail way station at the proposed Olievenhoutbosch Road crossing of the existing Pretoria / Olifantsfontein Railway line. The station will form part of a Transport Terminus where rail, bus and taxi facilities will be integrated in support of the emerging Irene Node.

#### **4.13.3 Road network**

The K54 has been earmarked as a Strategic Public Transport Network (SPTN) route. This route should be considered in conjunction with the BRT/rail concept put forward in this report.

The PWV9 and K101 have also been earmarked as SPTN routes. These are supported seeing that they service areas west of the N1 as well as the N1 corridor. It is important that these be integrated with the Gautrain in terms of intermodal facilities and services.

A comprehensive public transport infrastructure development and operational plan should be developed to support the RSDF. Given that this area is currently developing there is still an opportunity to intervene. This should be exploited.

#### **4.13.4 Bus Rapid Transit (IRPTN System)**

The need for a high-quality, customer-orientated public transport (transit) system was identified that will deliver fast, comfortable and low-cost urban mobility within the City. The City's Integrated Transport Plan (ITP) and the Strategic Public Transport Network (SPTN) approved by Council in January 2007 clearly identified certain corridors that should be further investigated and implemented as mass rapid transport corridors.

##### **Vision and Objectives**

Tshwane's residents depend upon the efficient provision of public transport services to fulfill their daily mobility needs. The integration of the different rail, bus, minibuss, and non-motorised transport options remains a major goal in delivering more convenient and cost-effective services. The proposed Implementation Plan seeks to articulate the vision and steps required to implement a public transport system that integrates all modes into a seamless and high-quality network.

##### **Phased Implementation**

The development of the full integrated network will take place over a series of phases, in order to match the available resources for planning, financial, and construction.

Region 4 is not affected by the first phases.

#### 4.14 RURAL AREAS

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analyzed and planned in order e.i. to protect the Environmental sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land use development in the less sensitive areas. The Rural map at the end of this section will be applicable to the Rural areas of Region 4.

The Tshwane Rural Component will promote:

- An effective response to rural poverty
- Measures to ensure food security by maximizing the use and management of natural and other resources.
- Promote the prevention of irreversible loss of productive agricultural land.
- Limit the fragmentation of productive agricultural land.
- Creation of vibrant, equitable and sustainable rural communities
- Contribution towards the redistribution and sustainable use of all potential agricultural land
- Creation of employment and business opportunities for the existing rural population
- Aims to prevent natural disasters like erosion and pollution and other detrimental effects on natural resources
- Formalization of residential settlements according to the agri village concept
- Accessibility to community facilities, work opportunities and housing for all

- Maintenance of acceptable standard for roads and other modals
- The provision of Public transport as a service for the more densely rural areas.
- The Identification of multipurpose community centers to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations.
- Provision of Adequate and respectable services to improve living conditions.

The Rural Component for Region 4 is defined in line with the “Smart Growth” principles of the MSDF. Together with the demarcation of the Urban Edge, the Development Edge, the C-plan and the Densification Strategy the Rural Component must be seen as a management tool to counter urban sprawl, encourage densification within the urban area and discourage densification within the rural area to protect and conserve all natural and cultural resources of the region

The area to the west of the Development Edge is within the long term direction of growth as it represents an important area of expansion of the region and metropolitan area. The concept therefore recognises this trend by including the area to the west of the Development Edge as “Future Urban Development Areas”. The area to the north east of the Development Edge is underlain by dolomite and only low densities can be accommodated

The future land uses, densities and intensities between the PWV 9 and the R511/M26 was the subject of a local spatial development framework which took, inter alia, the environmental sensitivities into account. The area identified for future residential development is in the extent of 60 000 ha. The area south of the K31 and north of the N14 could in future be considered as part of a corridor and may accommodate job opportunities. (Refer to the Monavoni and Western Farms LSDF)

#### 4.14.1 MAJOR RURAL ROADS

Each Region shows major roads and routes of Metropolitan context through the Region ensuring movement patterns and the continuation of roads and corridors for the greater Metropolitan area.

The following major roads serve the Rural Component of Region 4:

- N14/R28 (existing)
- R511 (existing)
- R512 (existing)
- Tulip Road/P 1582 (existing)
- K52 (proposed)
- PWV 6 (proposed)
- PWV 7 (proposed)
- PWV 9 (proposed)
- K44/103 (proposed)

#### 4.14.2 Urban Edge

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

The Gauteng Urban Edge divides Region 4 into two areas. As indicated in Part 2 “Metropolitan Context” of this document the Urban Edge cannot be seen as the only management tool to demarcate the Rural Component of Region 4. The Urban Edge however gives an indication of a proposed line between the Rural Component to the west, and the Urban Area to the east of Region 4.

#### 4.14.3 Development Edge

Compliments and corresponds mostly with the Provincial Urban Edge to indicate the extend of the Urban Fabric but deviates in some

instances and only in some Regions from the Urban Edge where it follows the line indicating the non-availability of services infrastructure in the Region. The resulting area caused by the deviation between the edges can realistically not be developed in the near future and need to remain rural in character until such time that services can be provided.

In terms of the Local Spatial Development Framework for the Monavoni and Western Farms Development Framework 2020, a watershed line acts as the western boundary of the Sunderland Ridge Waste Water Treatment Plant drainage area. This watershed line does not correlate with the Gauteng Urban Edge. However both these lines were combined to form the new Development Edge. The new Development Edge separates the Urban Area and the new Future Urban Development Area/s

#### 4.14.4 Future Urban Development Areas

These areas that results from the non- availability of services will form part of the Urban fabric in the future but needs to be planned for and preserved as Rural areas in a sensible way that will not constrict its incorporation when needed.

The Future Urban Development Area for Region 4 has been identified to the west of the Development Edge of this Region. The western boundary of the Future Urban Area is in line with the C-Plan's demarcation. The Future Urban Development Area excludes the most environmental sensitive and most environmental important areas that need to be protected as a major resource of the city.

The Future Urban Development Area, west of the Development Edge is under pressure for development. This area represents a natural direction of growth of the metropolitan area and region 4. Any future development could be accommodated in this area subject to the LSDF for the area and the availability of all essential services. This area should retain a rural character until such time that all basic services can be provided by the Municipality.

The pressure for development originates from the following main sources of development:

- Western growth of the Urban Area of region 4
- The rural development axis between Johannesburg and the Hartebeespoort Dam (road P103-2).
- Lanseria airport development and densification strategy
- Diepsloot residential- and Diepsloot nodal development (Johannesburg Metro)
- Olievenhoutbos development
- The regional location and accessibility from William Nichol Road (R511) from the Johannesburg area

Proposed Guidelines for development in the Future Urban Area:

- Development that is in line with the LSDF for the Monavoni and Western Farms Development Framework 2020
- The contribution of proposed development towards the goals of the City strategy and Metropolitan Spatial Development Framework.
- The availability of bulk engineering services.
- The protection of environmental sensitivity of the area.
- Proximity to other existing supporting social facilities, economic opportunities, retail, recreation.
- Physical features that may define the development – such as railway lines/watersheds/ provincial roads/environmental areas
- Provision of social services such as schools, medical facilities, police stations and other amenities.

#### 4.14.5 Management Zones



The Management zones are areas not considered suitable for urban development as they are not well located in terms of the larger urban structure and areas of opportunity and/or are characterised by environmental sensitivities as indicated by the C-Plan and Open Space

Framework, which are important to protect from a metropolitan perspective. Rural development such as low density eco and equestrian estates will be supported depending on services that can be provided.

Within these Management Zones land uses and densities, which do not fit into the denser urban complex, should be permitted. Uses supported in the management zone would be Lodges, Wedding Venues, mini storage, place of refreshment; children party venues. The availability of services and the ease of access to major roads will play an important role in the evaluation of no residential uses as mentioned above. the easy of Non-residential uses serving the rural population and surrounding urban areas should be concentrated in Community Service Centres as indicated on Region 6 Rural Component Plan. Locations at the intersections of major Roads will be supported.

Within these Management Zones land uses and densities, which do not fit into the denser urban complex, should be permitted. Non-residential uses serving the rural population should be concentrated in Community Service Centres as indicated on Region 4's and Region 3 Rural

#### 4.14.6 Agricultural High Potential Areas



Where so indicated certain land in Tshwane Rural has unique agricultural potential in terms of its location, soil quality, being close to irrigation and other amenities or able to provide high yields and or produce with specific feeding qualities. These quality areas have importance on Regional, Metropolitan and even National level and should be preserved and used in terms of their uniqueness only. Food produce for the country as a whole should be maintained and improved for future generations.

Productive agricultural land will be protected as far as possible in terms of this framework. Fragmentation of agricultural high potential areas will be restricted to a minimum. Agri- industry will be supported in and in close proximity of agricultural high potential areas.

See map at end of section.



#### 4.14.7 Sensitive Protected Areas /Biodiversity Zone



Sensitive protected areas. (Combination of Biodiversity protected areas, including ridges and streams, natural resources, fauna and flora protected places/areas). These areas are important in terms of nature conservation and must be managed to maintain its rural, visual attractiveness and natural environmental content.

The Sensitive Protected Area of Region 4 is located to the far west of the Region. This area should be managed through environmental codes, to protect the basic resources. The Sensitive Protected Area include important areas, irreplaceable areas, protected areas, ridges and blue ways in line with the C-Plan

The Sensitive Protected Areas of Region 4 are:

3. Significant ridge systems such as the Schurveberg, Langeberg, Kwaggasrand;
4. Significant watercourse systems throughout, most notably the Hennops River, Jukskei River and Crocodile River.
5. Ecologically sensitive areas associated with ridge and watercourse systems;

Range of uses on merit related to agriculture, conservation, tourism, recreation, arts and crafts can be considered provided:

- 1 dwelling units per 10 hectare
- no second dwellings
- cluster and space principles - 5% development footprint with 95% conservation footprint
- 5% ecological footprint on class 2 ridges
- No intervention on class 1 ridges

Non- agricultural uses will only be promoted if the amenity of the rural area remains intact and the impacts of the development on neighbouring properties are minimal.

#### 4.14.8 Sensitive Ridge Areas



Sensitive protected areas. (Combination of Biodiversity and protected areas, including ridges and streams, natural resources, fauna and flora protected places/areas). These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Protected Areas of Region 4 are:

Significant ridge systems such as the Schurveberg, Langeberg, Kwaggasrand;

#### 4.14.9 Heritage and Cultural protected Areas



Similar to protection of monumental structures, places and land within the urban context there are equally important structures places and land found in Tshwane's Rural areas that need protection. In most cases the best protection can be provided when it is also developed and operated as Tourism attractions.

#### 4.14.10 Tourism Potential Places/Areas



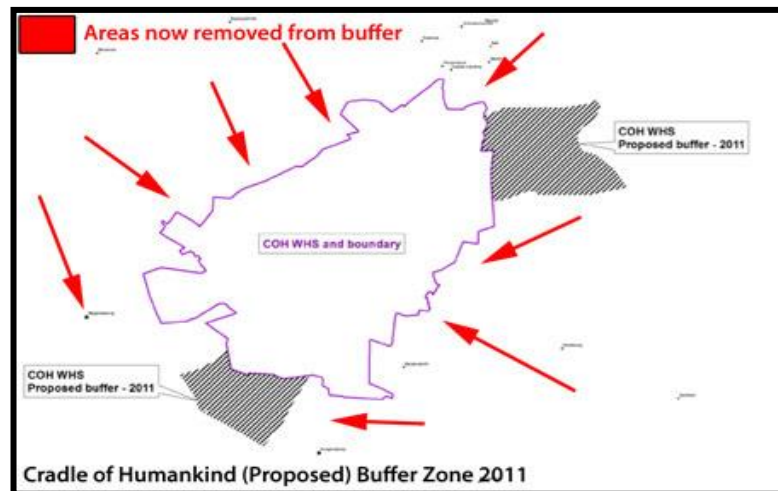
Of natural and economic importance for Tshwane is the accrue ment and expansion of the already known places of tourism, tourism attractions and tourism activities. Places with tourism potential occur throughout Tshwane's rural areas. Conservation and preservation needs to be maintained and tourism potential exploited without damaging overall natural and rural character. Different tourism related uses such as picnic areas, lodges, wedding venues and arts and craft related uses including places of refreshment will be supported in these areas. Commercial uses and uses such as storage and light industrial uses should not be supported in these areas. The Cradle of Humankind World Heritage Site



is situated outside the boundaries of Region 4 to the west, but the buffer zone of the heritage site falls in the Sensitive Protected Area of Region 4.

The following places with tourist potential can be found in Region 4:

- Parts and portions of the R511 from Diepsloot in the south to Hartbeespoort Dam in the north
- Renosterspruit Nature Reserve
- Kareebosrand Conservancy



Further cultural historical sites are Koppie Alleen, Hospital Cave, Bat Cave

#### 4.14.11 Conservancies

##### Conservancy

Proclaimed conservancies have legal standing and management prescriptions. Conservancies strive towards preservation and the protection of their present state and the notion should be honored in the rural context and the evaluation of development proposals.

The following conservancies potential can be found in Region 4:

- The Kareebosrand Conservancy

#### 4.14.12 Game and Nature Reserves

##### Game and Nature

The following places with tourist potential can be found in Region 4:

- Renosterspruit Nature Reserve

#### 4.14.13 Mines and Places of Manufacturing

##### Mines/ Places of

There are few and dispersed mines and or places of manufacturing in Region 4. All of them need to be managed for their time of existence and specific rehabilitation programs should be investigated and installed. Protection measures should be implemented for adjacent land and sensitive environments.

#### 4.14.14 Human Settlements



There are a number of places in the Rural Component of Tshwane where villages and other forms of human settlements occur. Some are tribal in nature with official captaincy while others are just a habitual conference of people living together. Some have legal support while others are just illegal squatters. It remains a sensitive issue how to deal with settlements and in each specific case measurements should apply how to best resolve settlement issues. Settlements to remain should be formalized and

provided for in terms of human needs and basic services. A settlement that must move needs planning according to an approved program. Specific measures must be taken to manage adjacent land.

#### 4.8.15 Community Service Centres

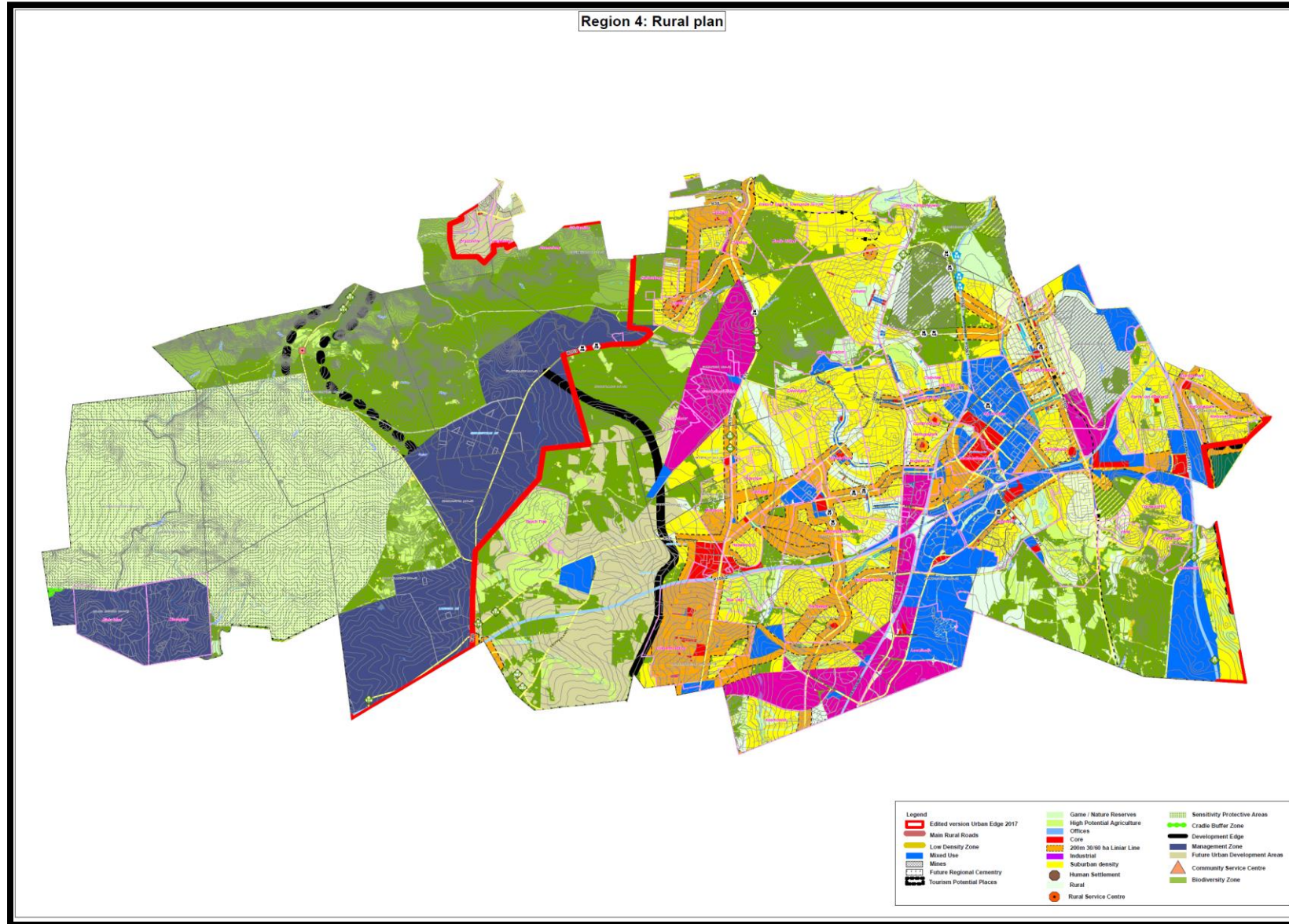


Remote rural areas most of the time do not have the convenience of facilities and amenities within easy reach and sometimes have to rely on the closest urbanized area to fulfill certain basic needs. Because of the extensiveness of most Rural areas it is therefore most logical to concentrate whatever facilities, services and amenities that can and should be provided together close to the bulk of the population at a location that is the most accessible to all. As transport provides accessibility, road junctions or cross roads tend to provide most accessible locations for surrounding populations in vast Rural areas.

There are no Community Service Centres located in the Rural Component of Region 4. There are two nodal developments adjacent to Region 4, which serve the community of this Rural Component. The Hennopsrivier Rural Node is situated in Region 3 on the R511 in the Hennopsriver Valley. Although this node is just outside the northern boundary of Region 4, it serves the rural community of Region 4, by way of a Primary School and subservient rural uses. There is potential for this node to develop into a full Community Service Centre.

The second Node is situated just outside the southern boundary of the Rural Component of Region 4. The Diepsloot Metropolitan Node is situated on the south-eastern quadrant of the intersection of William Nicol and the N14.

This node is not a Rural Node (Community Service Centre) but the influence of this emerging Metropolitan Node will impact on the Rural Component of region.



#### 4.15 OPEN SPACE AND ENVIRONMENTAL AREAS

Region 4 is characterized by a vast number of ecological assets which form the basis for the open space nodes and directs the city form. To ensure that ecological assets and especially irreplaceable sites remain protected they should form an integrated part of development and be in the interest of the public. The aim should be that public open spaces should be accessible, effective, sustainable, manageable, safe, well maintained and aesthetically pleasing and contribute to a unique city image and promote tourism.

The Open Space System in Region 4 consists of several ecological and socio-economic focal points and resources connected together by means of natural elements e.g. rivers, streams. The continuity of the linkages ensures accessibility for citizens and the permeable open space structure further contributes to ecological sustainability on a city scale, since species of fauna will be able to move between different habitats without restriction. Where natural elements lack in ensuring continuity of the linkages, the open space system should be enhanced by means of streets, servitudes etc.

The ideal is to have an open space system that is identifiable and legible on all scales. A distinction is made between a primary network (of relevance on a city scale), a secondary network (of relevance on a district scale/neighbourhood scale) and a tertiary network (of relevance on a precinct scale).

The primary network forms a deformed super grid over natural features and the physical layout of the region. A network of linkages (as linear connections) and nodes (cluster spaces) is established. In the western part of the region that grid is more intense, with smaller blocks being created mostly as waterways and greenways.

The secondary network forms a minor grid dividing the super grid into smaller portions. This will include the smaller tributaries of waterways (rivers) and natural drainage courses. All other streets, servitudes and sidewalks promoted to enhance the linkages are considered part of the tertiary network.

The RSDF plan addresses the open space network on a regional scale only and does therefore not include all open space elements as defined in the Tshwane OSF. The plan addresses the following two categories:

- Open Spaces
- Socio-economic areas
- Environmental Areas

Discussions with GDARD and the Municipality's Environmental Planning Section must be held before any development or change of land-use application can be submitted, to determine whether the important sites, irreplaceable sites and high ecological sensitivity sites are subject to a possible E.I.A. survey.

##### 4.15.1 OPEN SPACES

Open space includes all rivers, water courses, mountain ranges and ridges, protected areas, conservation areas and conservancies, as well as major brown nodes (e.g. sport complexes).

##### Ecological Focal Points

The following Ecological Focal Points are identified:

- The Schurveberg and surrounding area to the north-west of the region with its unique and valuable ecological assets (dolomite caves) and the strong rural ambience to the south west of the region.
- The Groenkloof Nature Reserve to the north-east forming the Southern Inner City Gateway because of its ecological and historical significance.
- Rietvlei Dam to the south-east of the region forms part of the Hennops River waterway stretching from the Rietvlei Dam to the Hartbeespoort Dam north west of the Region.



## Natural Resources

The natural resources form part of the primary open space network of ecological focal points and physical resources connected together by means of the natural elements.

- Ridge systems: Schurweberg, Hills on Hoekplaats, Cornwall hill
- Watercourse system: Hennops River, Rietspruit, Swartbooispruit, Sesmylspruit, .
- Dams, quarries and wetlands: Rosema Quarry, Centurion Lake, Rietspruit marshland.
- Protected areas: Zwartkop Nature Reserve, Rhenosterspruit Nature Reserve
- Irene Agricultural Research Institute
- Conservancies: Hennopsvallei Conservancy, Rhenosterspruit Conservancy.

### 4.15.2 SOCIO-ECONOMIC AREAS

The socio-economic areas contribute to the ecological focal points which form the basis of the primary open space network. These mainly consist of sports complexes and related facilities.

- Centurion Lake, Centurion Cricket Stadium linked together by means of the Hennops river embankment.
- A number of Golf Courses: Gardener Ross, Dienste Golf Course, Monumentpark Golf Course, Irene Golf Course, Zwartkop Golf Course, Centurion Estate Golf Course
- Other: Zwartkop Race course, Fountains Valley recreational resort.

### 4.15.3 ENVIRONMENTAL AREAS

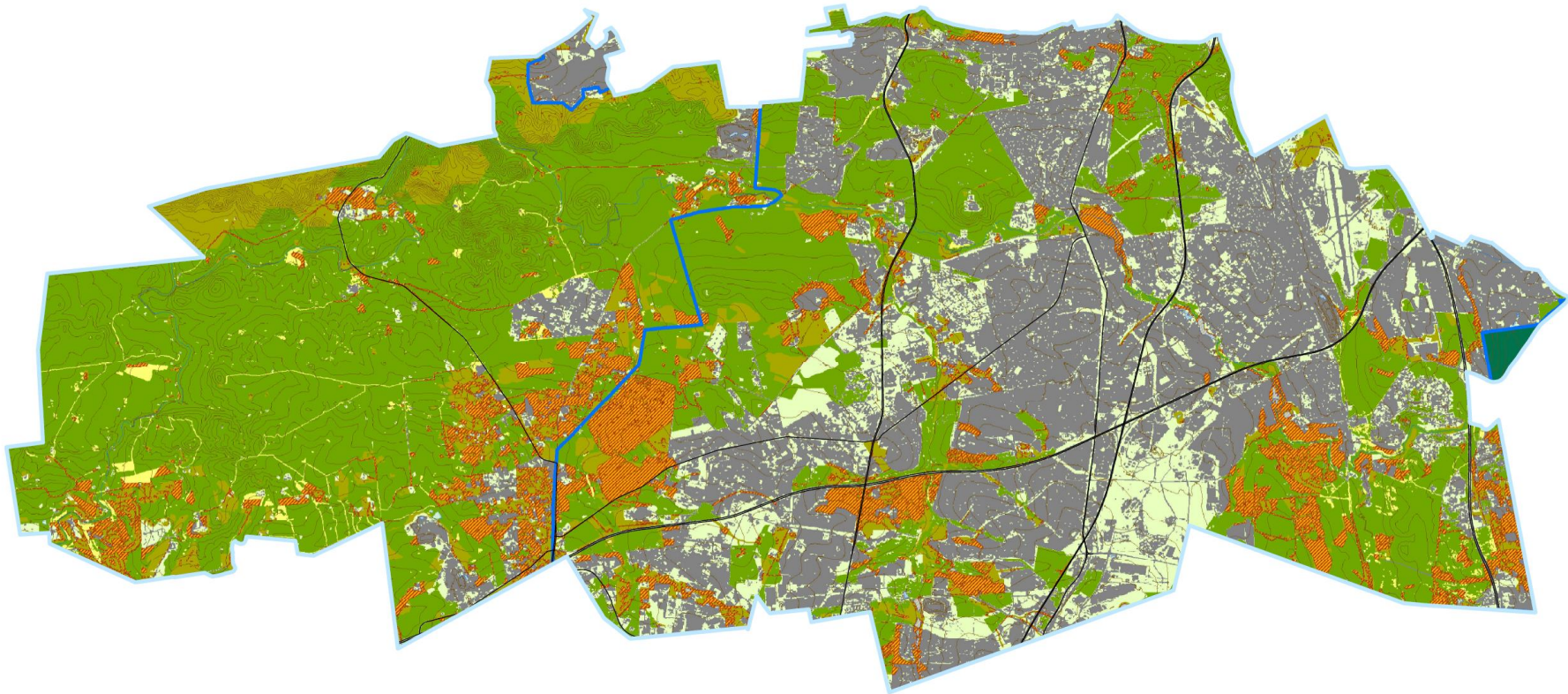
Environmental Areas are all irreplaceable, important and high ecological sensitivity sites, as identified and defined by GDACE.

#### Cultural-Historical Areas

- Schurweberg area
- Smutskoppie, Smuts farm house
- Cradle of Humankind World Heritage Site
- Antiquities at Zwartkop Air Base and Waterkloof Air Base
- Rooihuiskraal Historical Terrain.

Brown, grey and red nodes and ways are not shown. For complete and detailed information regarding the Metropolitan open space network, it is essential and of utmost importance that the Tshwane OSF plan is always consulted together with the RSDF plan.

Discussions with GDACE and the Municipality's Environmental Planning Section must be held before any development or change of land-use application can be submitted, to determine whether the important sites, irreplaceable sites and high ecological sensitivity sites are subject to a possible E.I.A. survey.



**Legend**

- Region
- Municipal Boundary
- Highways
- Urban Edge 2013
- Contours 2013 20m

- Dam
- River

- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Area 1
- Ecological Support Area 2

- No Natural Remaining
- Other Natural Area
- Protected Area (Formal)
- High Potential Agricultural



Date: 2017/03/13  
Scale: 1:38 000



- This table details management recommendations for each category on the Critical Biodiversity Areas map.
- The recommendations are designed to inform a wide range of land use and planning decision making processes and conservation implementation activities.
- The recommendations only provide guidance to decision-makers and serve as an informant to planning processes on appropriate land management and activities and do not in themselves grant or remove development rights.

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Protected Areas</b>	Formal Protected Areas and Protected Areas pending declaration under NEMPA.	Maintain natural land. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Maintain or obtain formal conservation protection.	Conservation and associated activities.	All other land-uses.
<b>Critical Biodiversity Areas (1)</b>	Areas required to be maintained in a natural or near natural state to meet targets for biodiversity pattern (features) or ecological processes.	Maintain natural land and ecological processes. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Obtain formal conservation protection where possible. Implement appropriate zoning to avoid net loss of intact habitat or intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations with strict control on environmental impacts and carrying capacities, where the overall there is a net biodiversity gain. Extensive Livestock Production with strict control on environmental impacts and carrying capacities. Urban Open Space Systems	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production ( all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures). Arable Agriculture (forestry, dry land & irrigated cropping). Small holdings
<b>Critical Biodiversity Area (2)</b>	Cultivated landscapes which retain importance for supporting threatened species	Maintain current agricultural activities. Ensure that land use is not intensified and that activities are managed to minimize impact on threatened species.	Avoid conversion of agricultural land to more intensive land uses which may have a negative impact on threatened species or ecological processes.	Current agricultural practices including arable agriculture, intensive and extensive animal production, as well as game and ecotourism operations, so long as these are managed in a way to ensure populations of threatened species are maintained and the ecological processes which support them are not impacted.	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). More intensive agricultural processes than currently undertaken on site.

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Ecological Support Areas (1)</b>	Natural, near natural and degraded areas required to be maintained in a ecologically functional state to support Critical Biodiversity Areas.	Maintain ecological processes.	Implement appropriate zoning and land management guidelines to avoid impacting ecological processes. Avoid intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations. Extensive Livestock Production. Urban Open Space Systems. Low density rural residential, smallholdings or resorts where development design and overall development densities allow maintenance of ecological functioning.	Urban land-uses including Residential (including golf estates), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production ( all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures) Arable Agriculture (forestry, dry land & irrigated cropping). Note: Certain elements of these activities could be allowed subject to detailed impact assessment to ensure that developments were designed to maintain overall ecological functioning of ESAs.
<b>Ecological Support Areas (2)</b>	Areas with no natural habitat which retain potential importance for supporting ecological processes.	Avoid additional impacts on ecological processes.	Avoid intensification of land use, which may result in additional impact on ecological processes.	Existing activities ( e.g. arable agriculture) should be maintained, but where possible a transition to less intensive land uses should be favoured.	Any land use or activity which results in additional impacts on ecological functioning, mostly associated with the intensification of land use in these areas (e.g. Change of floodplain from arable agriculture to an urban land use or from recreational fields and parks to urban).
<b>Other Natural Areas</b>	Natural and intact but not required to meet targets, or identified as Critical Biodiversity Areas or Ecological Support Areas.	No management objectives, land management recommendations or land-use guidelines are provided as these areas are outside the ambit of the Bioregional Plan. These areas are nevertheless subject to all applicable town and regional planning guidelines and policy. Where possible existing transformed areas should be favoured for development before "Other natural areas" as before "Other natural areas" may later be required either due to the identification of previously unknown important biodiversity features on these sites, or alternatively where the loss of "Critical Biodiversity Areas" has resulted in the need to identify alternative sites.			
<b>No natural habitat remaining</b>	Transformed or degraded areas which are not required as Ecological Support Areas, including intensive agriculture, urban development, industry; and infrastructure.				

#### 4.16 WETLAND MANAGEMENT PLAN FOR TSHWANE

This plan has been developed to improve wetland management in the City of Tshwane. Wetlands are critical to the wellbeing of the local economy, communities and individual people and provide a range of services for the City of Tshwane.

Wetlands can be regarded as „ecological infrastructure“. They are as important as other types of infrastructure for providing a range of services for residence. As with other forms of infrastructure such as roads, wetlands also require management and maintenance in order to keep them in good condition and functioning well.

Ecosystem services provided by wetlands include: water storage, flood protection, water purification, food, materials, habitat for species, carbon storage, local climate and air quality regulation.

It is important to take note that wetlands benefits all the residence of the City of Tshwane. Although the Municipality is the custodian of wetlands only on municipal properties, all the wetlands supply ecosystem services to all residents.

The goals of the plan are as follows in Region 4:

Wetlands are conserved and protected.

- In areas where the continuing loss or degradation of wetlands, or their functions, have occurred and/or reached critical levels, wetlands are rehabilitated or enhanced.
- All departments are aware of the importance of wetlands and wetland
- functions are recognised in resource planning, management and economic decision-making with regard to all programmes, policies and activities within the City of Tshwane.
- Local communities collaborate in wetland management.



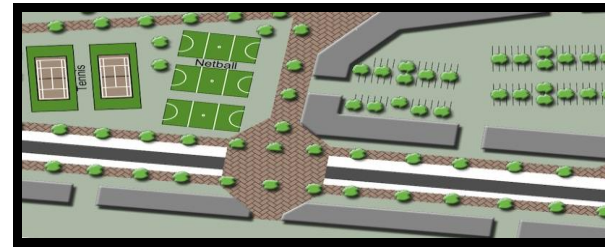
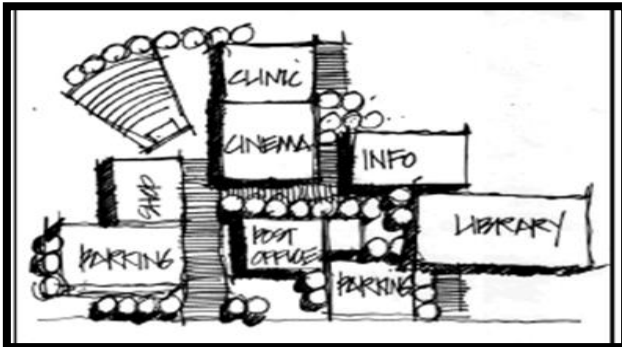
#### 4.17 SOCIAL FACILITY PLANNING

From a spatial or location perspective, the clustering of parks and social facilities in and around corridors and other points of highest accessibility (such as major transport facilities) is of vital importance.

Different social facilities such as schools, clinics, pay points, library's, active open space and other should be clustered at one central point in the residential neighbourhood and should be accessible in terms of public transport.

Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase. Open green space should not be privatised. Existing open spaces and parks must be protected and not used for development purposes

Encourage community and stakeholder collaboration; and retain, enhance and encourage cultural assets. Neighbourhood amenities must be provided as densification takes place. Where neighbourhoods lack sufficient open space, new parks and recreation areas must be introduced, especially in areas earmarked for higher density development. Activity Support is the presence of activity planned for the space. Development designs should locate plazas, for example, in places where they are most likely to be used for gatherings (both organized events and informal meetings).



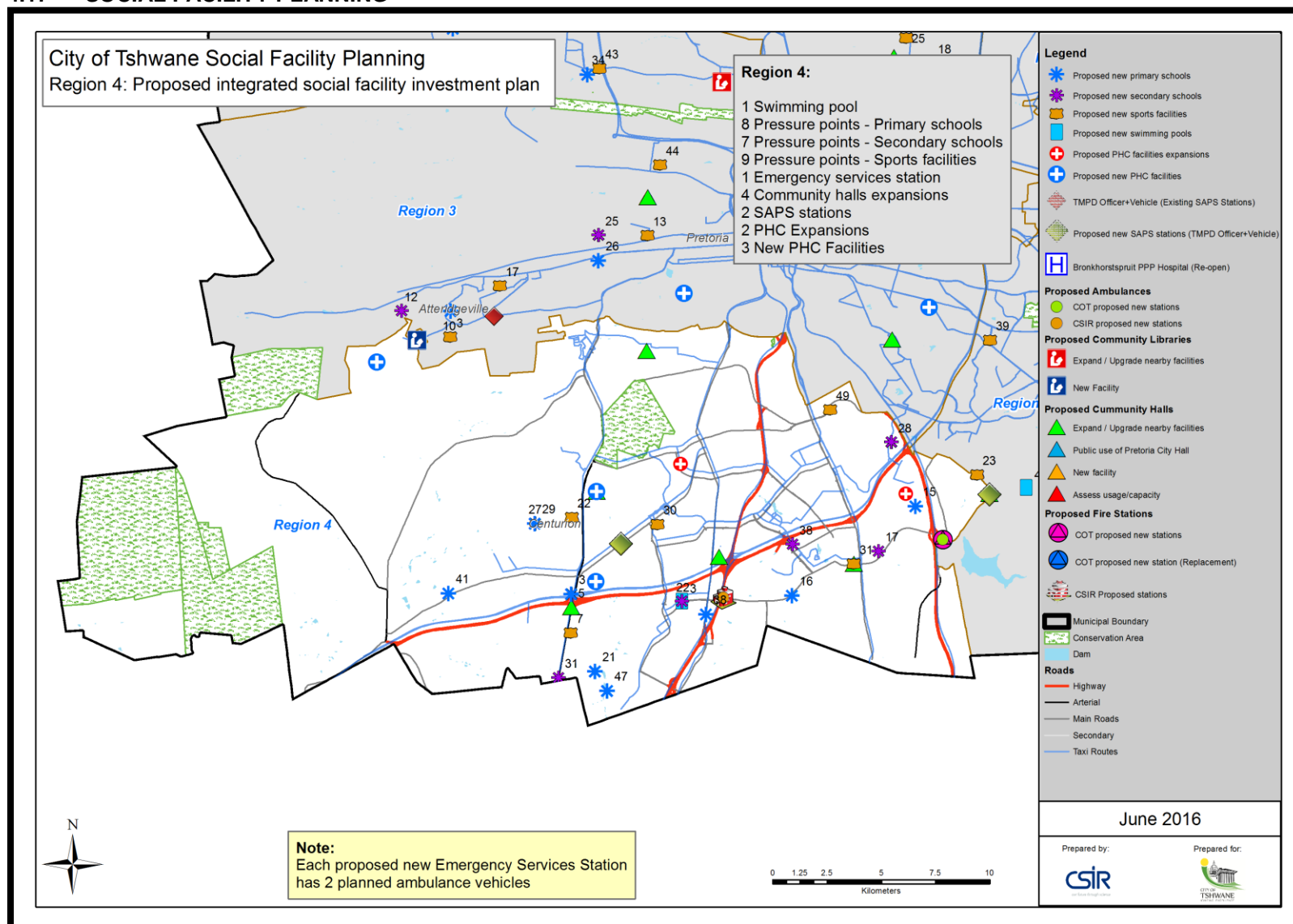
#### Primary schools Needed in Region 4

Primary schools identified pressure points and their attracted population / demand – Region 4		
Attracted population	Facility equivalent	Suburb / Sub-place
8 192	An equivalent to 8 schools of 1000 pupils	Monavoni AH
1 701	An equivalent to 2 schools of 1000 pupils	Irene Farm Villages
1 638	An equivalent to 1 school of 1000 pupils	Irene View Estate

#### Secondary Schools Needed in Region 4

Secondary schools identified pressure points and their attracted population / demand – Region 4		
Attracted population	Facility equivalent	Suburb / Sub-place
4 026	Equivalent of 4 secondary schools of 1000 pupils	Monavoni - AH
1 636	Equivalent of 2 secondary schools of 1000 pupils	Irene – close to Cornwall Hill Country Estate
1 000	Equivalent of 1 secondary schools of 1000 pupils	Rooihuskraal





## PART FIVE: DETAIL PRECINCT PLANS

### 5.1 EXISTING PRECINCT PLANS

Previously a number of precinct plans and policies have been developed for areas within the region which are in line with the CDS and MSDF. The following list of policies and plans with their main proposals are included as part of this framework:

#### Centurion Metropolitan Node

Centurion Metropolitan Node is a place of opportunity in Gauteng and Tshwane Context.

This node is a fairly new metropolitan node develops as the core of the previous city of Centurion. Centurion Metropolitan Core within Region 4 is directly in the growth path of development forces that are establishing on the north-south development corridor between JHB and Tshwane and Ekurhuleni and Tshwane. The multi-nodal linear urban lattice that emerges- in effect a “linear city” becomes the area of priority to accommodate future growth and intensification.

Centurion Metropolitan Node is one of the beads on this development axis, (Other are Rosebank, Sandton, Woodmead and Midrand) where the foundation of the lattice is planned and developed. The planning of the metropolitan node was based on modern town planning principles that provide the foundations for integrated and on-going development in a sustainable way.

The Centurion Metropolitan Node is centrally located in the knowledge economy region on the N1 ranging from the Innovation Hub in Pretoria East to Midrand in the south.

This Metropolitan node is linked and part of the eastern portions of Region 4 that is characterised by high-technology developments, warehousing, distribution centres and office developments along the N1 strip, which results in a large influx of skilled labour into the Region on a daily

basis. This Metropolitan Node provide numerous opportunities for the financial and corporate sector while it can also be a central “think tank” and administration headquarters in the high technology zone.

The larger Metropolitan Node provides for all the important ingredients and potential to be branded as a “knowledge city”, “smart city”, “creative city”, “green technology city” with the realisation of the proposed redevelopment of the Centurion Lake, and the spinoffs it will be provided.

The Centurion CBD core area can be seen as a place of opportunity for much higher intensity and density developments than in the past. In the core area much developable land remain within walking distance from the Gautrain station, where high intensity mixed uses can be developed.

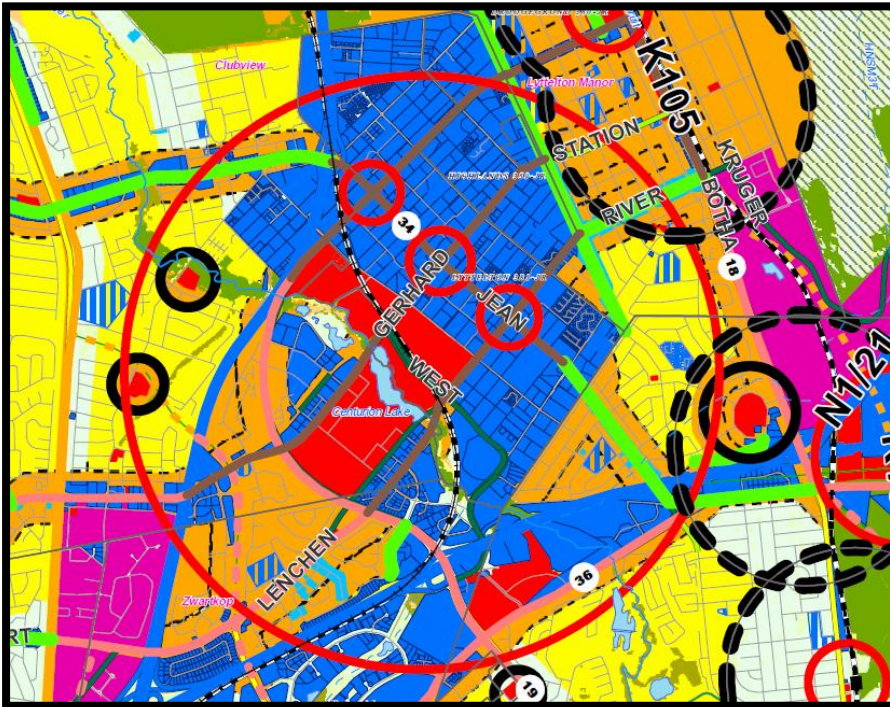
The proposed high intensity scale of future development will address possible geological problems, development and functionality of the Centurion Lake and surrounded open spaces. The evaluation of the scale and maintenance of waterborne services, indicate that the higher intensity use present scenarios that can be managed with a significantly lesser degree of risk than a lower intensity scenario. Where responsibility of management is done on a collective basis, higher intensity uses actually contribute to reducing risk.

Proposals such as the following will contribute to the sustainability and the realization of huge development opportunities in the Centurion metropolitan node:

- The future of the Centurion Metropolitan Node and the eastern parts of Centurion indicate the radical departure from a rural nature to a robust urbanity.
- Apply the holistic approach in the future planning and development .
- The development of a transportation box around the core area of the metropolitan node in order to increase the accessibility for large developments;



- More urban design guidelines for the CBD shall be provided and implemented for the integration and functional efficient of the core area and surrounds of this area;
- In the context of expected development pressures, the focus falls squarely on how urban management will allow and promote this growth while a high quality of urban environment is maintained.



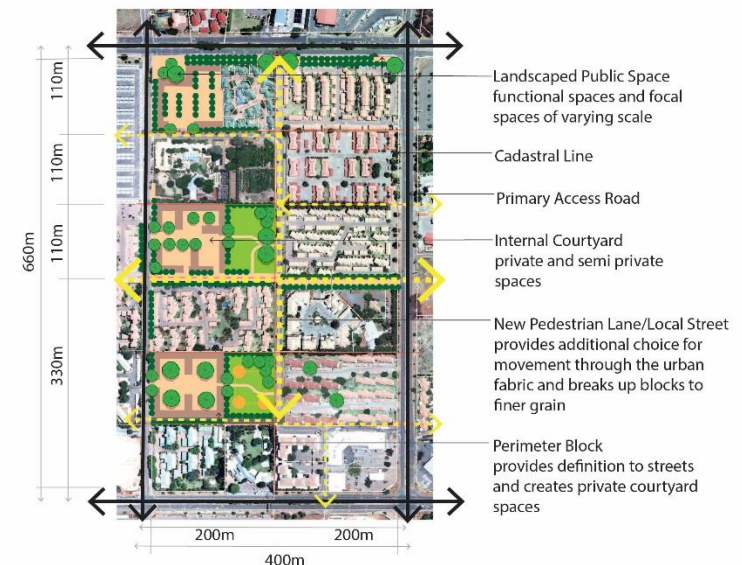
### Interventions

- Promote high intensity mixed use development in the core area and surrounding the Gautrain Station to obtain economy of scale.
- Facilitate the re-development of the Centurion Lake and surroundings to be an integrated development.

- The urban design of the core area with the focus on the pedestrianisation of the area and the integration of developments north and south of the lake.

The Centurion Metropolitan Core and surroundings displays varying degrees of development stability and/or propensity for significant change and these trends are manifest in clear patterns.

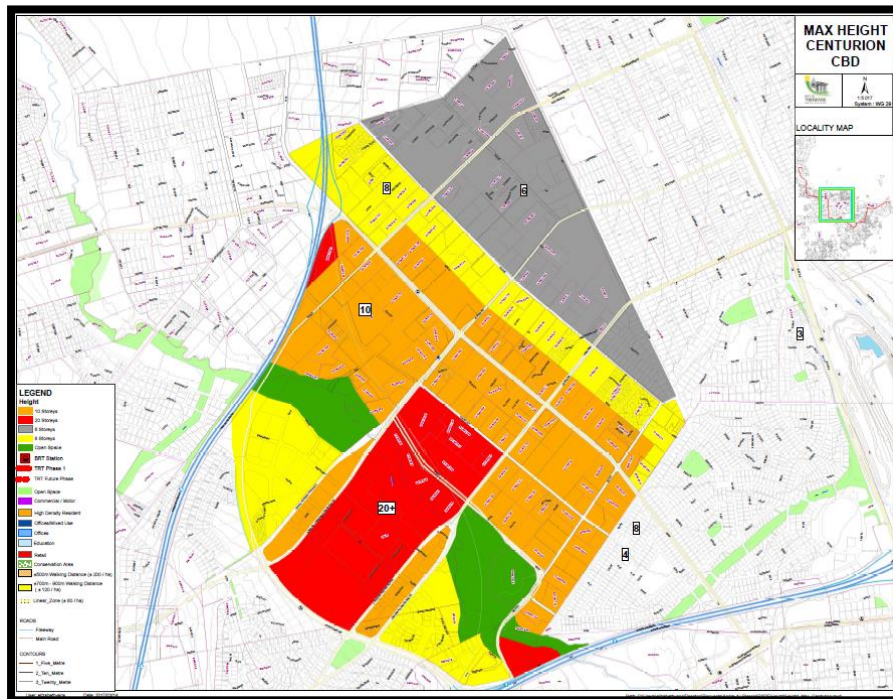
The south western precinct is most stable with very solid suburban residential development and well located mixed use development at its key entrances. Significant or large scale change in this area will be difficult to achieve in that land values associated with current use is still high and stable and areas where change is most likely has already occurred (Gateway development)



The central precinct by contrast is under significant pressure for change due to the prevalence of well-located vacant land and also pressure to regenerate the area so as to protect existing investments in primary

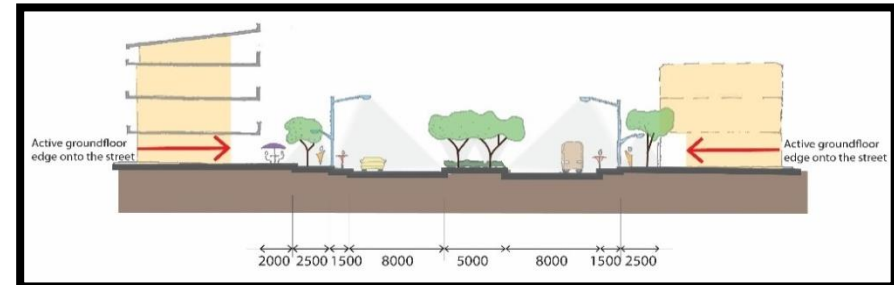


business developments, as well as, the significant rate base. Change need to occur here in order to regenerate and protect existing development, but also to capitalise on new locational advantages being generated for the node by improved overall regional accessibility. Good opportunity also exists on those sites that are not optimally developed. Developments in the central precinct is most likely to be large and catalytic in nature with significant impacts on character in infrastructure capacity



The north eastern precinct is the most dynamic area in terms of land-use and activity change and this is being driven by the high regional accessibility of the area, the “soft” existing agricultural uses which are no longer viable, and regional pressure to be located within a primary development corridor of the Gauteng regional economic landscape. Change in this area will be smaller scale and incremental with changes of agricultural land to urban uses whilst there may be more adventurous and

larger scale and higher impact change associated with the new station through consolidation and redevelopment of existing run down developments.



#### Centurion Node Non Motorised Plan.



### 5.1.2 IRENE EMERGING NODE

#### Regional Context

The Irene Emerging Node is strategically wedged within 2 km south of where the R21 and N1 highways intersect. Currently the Nellmapius Road off-ramp system from the R21 highway is the main access to the area and forms the southern boundary of the node. The area is bound to the west by the railway line, the N1 Highway to the north and Goedehoop Avenue to the east. The emerging node is therefore ideally situated to exploit maximum benefit from both the R21 and N1 corridor, the off-ramp systems and the railway line. This area also falls within the Economic Core identified for Gauteng Province and high profile developments, such as offices, finance and information technology related developments which provide accessible job opportunities, is promoted.

The area is currently characterized by the following:

- The Irene Village Mall with a retail capacity of 54 000m<sup>2</sup>
- Route 21 Corporate Park consisting of multiple high technology corporations
- 244 ha of prominently situated vacant land
- Low residential areas: Pierre van Ryneveld, Cornwall Hill and Irene Village to the west

#### Vision

The key vision for the Irene node is to create an urban precinct that promotes overall functionality and liveability through adhering to the principles of sustainability and responsive planning. The development shall strive to optimally utilise existing resources in order to contribute to the process of restructuring our cities into healthy sustainable environments through providing opportunities to promote higher residential density and integrated environments with typical urban characteristics, thereby counteracting suburban sprawl, ensuring that residents have access to a range of choices with regard to housing typologies and integrating residential development, mixed uses facilities, movement systems, social

facilities and employment opportunities. A concept where a community live, work and play within a sustainable area are foreseen. The large conservancy area that will be home to an environmental information centre and restaurant along the ridge becomes one of the key elements within the node to create a Public Space System (PSS) that promotes pedestrian movement and contribute to a unique aesthetically pleasant node which will be enhanced by urban design elements, landscaping and architecture.

A mixed land use area is promoted to achieve the vision for the node. Certain land uses will be dominant in areas of economic opportunities e.g. offices and high technology industries that will exploit visibility from the highways whilst residential uses will mainly be located on the periphery where the node collides with the existing low residential areas.

The area will consist of various precincts consisting of superblocks which will give some flexibility in land-uses and design to allow adaption through time as the development evolves. The precincts can be described as distinct areas, each having its own character, dominant land use(s) and relevant spatial patterns which are in line with an approved Urban Design Framework(s). The Urban Design Framework(s) and Development guidelines will ensure that certain key elements e.g. the continuity of pedestrian movement, design elements, architecture are integrated through-out the node to ensure that the urban form and vision for the node is contained within a development of high urban quality.

#### Road Network

Both the N1 Highway and the R21 form part of the dynamic development corridors for Region 4 linking development nodes from Johannesburg International Airport (O R Tambo) with the north of Tshwane. Development trends along corridors are directly influenced by the interrelation between the visibility and mobility functions of the highway. The development potential of areas along highways are supported by first order roads which provide access and creates further opportunity for development due to through traffic. The area plays a key integration role in the future road network for Region 4 as illustrated on the map. Olievenhoutbosch Road/

Nellmapius Road will traverse through the area, providing an east-west link between the N1 and R21 highways. This section of Olievenhoutbosch Road will strengthen and forms part of the N1 development corridor and will provide alternative access to the Centurion CBD Metropolitan Node. A large part of Olievenhoutbosch Road will be developed as a double carriage way system forming 'islands of opportunity' between the carriage ways of the one-way road system. An intermodal facility which will include a railway station (with PRASA stop), bus- and taxi-facilities are planned on Olievenhoutbosch Road where it will cross over the railway line. The introduction of this facility as part of the node provides the opportunity for intensifying land uses, promoting public transport and achieving a reduced per-capita automobile travel.

### Development Potential

The development potential of the vacant land in the area is approximately 1 500 000m<sup>2</sup>. These properties have all been the subject of land-use applications that have already been approved. The bulk of land uses is indicated below and will be distributed throughout the area, also note that, apart from the value mart planned south of the Irene Village Mall, additional retail facilities will not be centre based, but will be integrated with other land uses and concentrate on destination retail and service based retail e.g. convenient stores, confectioneries etc.

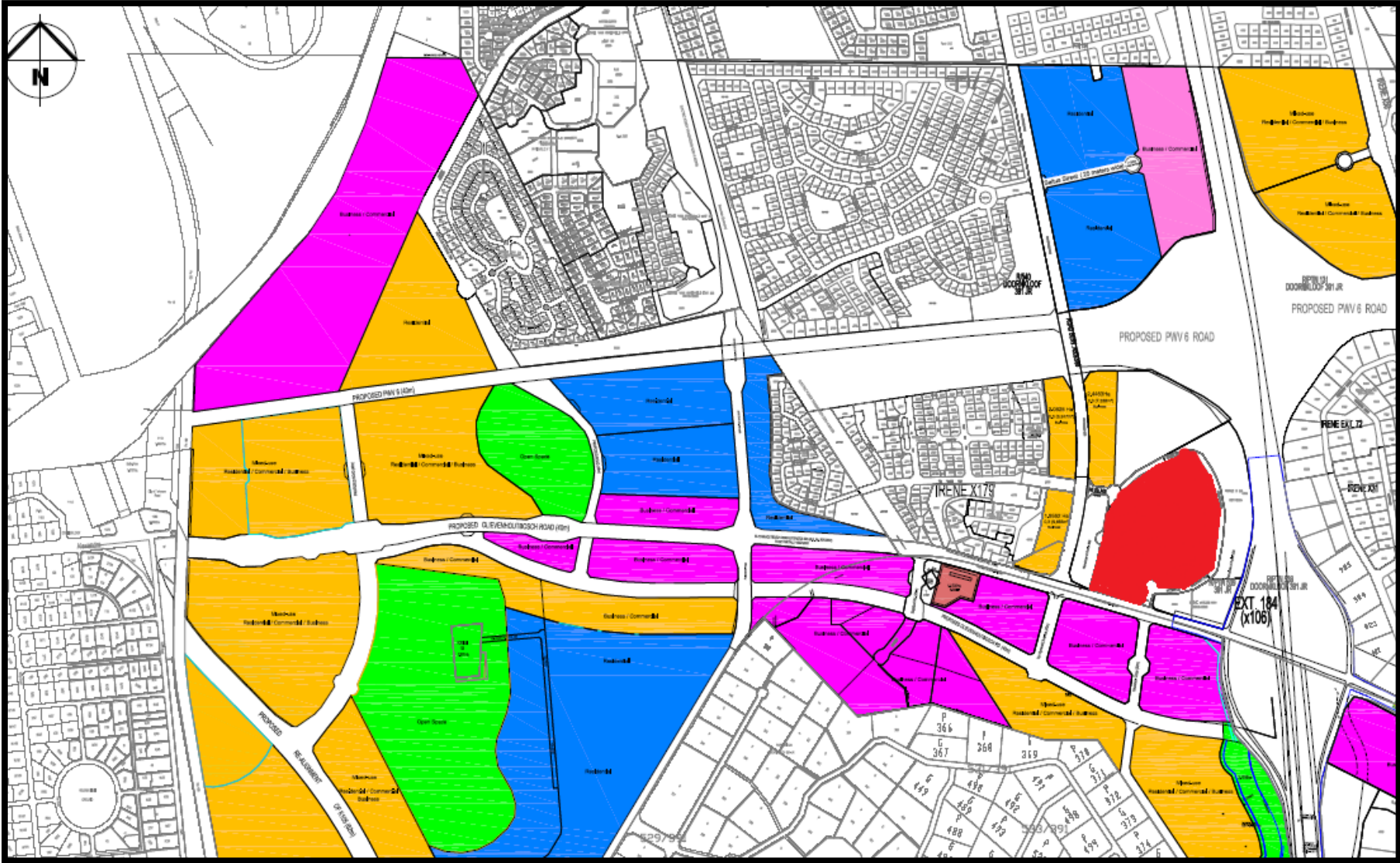
- Offices: 673 772 m<sup>2</sup>
- Business: 227 491 m<sup>2</sup>
- Retail: 133 431 m<sup>2</sup>
- Light industry / warehousing: 142 481 m<sup>2</sup>
- Hotels: 310 rooms
- Residential: 3100 units, Educational facilities: 31 431 m<sup>2</sup> - additional educational facilities were included in most of the zonings to create opportunities for smaller facilities such as places of child care.

### Strengths of the Node

- Visibility and accessibility from the R21 and N1 highways, additional access (off-ramp) from N1 at Kruger Avenue.
- An additional bridge is planned linking the vacant land north of the Route 21 Corporate Park with the Irene Village Mall precinct. The bridging structure will be in the form of an explicit 25 storey landmark building. This will mark the area as a southern gateway to Region 4 and the City of Tshwane from the R21 corridor.
- Construction of a new road network to strengthen the east-west link in the region.
- The existing Route 21 Corporate Park which is home to a large number of high technology and creative industries links onto the vision for the Metropolitan Node to be branded as a "Knowledge City".
- The existing Irene Village Mall with its unique character.
- An educational node that will consist of all levels of education and is located within close proximity of the existing Cornwall Hill College
- An intermodal facility that will promote public transport and will in future become part of the BRT system.
- The large portions of land create the opportunity to create an integrated and unique urban form with the implementation of Urban Design Frameworks and development guidelines.



IRENE EMERGING NODE



### 5.1.3 MONAVONI EMERGING NODE

#### Background

The Monavoni Area and the Monavoni Precinct are an important emerging Regional Node, with the potential to evolve over time into a Metropolitan Node in the south western part of Region 4. This potential is seen as a driving force in the approach and vision for the Monavoni Precinct to contribute to the elevation of the role and contribution of the Monavoni Region in the broader city context.

Most of the Monavoni Region is still rural in nature, comprising farmland and scattered agricultural holdings. The urbanised eastern areas of Region 4 are steadily filling in the undeveloped land located between Centurion and Midrand. Mixed-use projects within the Monavoni Precinct, such as the Monavoni Extensions 58 and 59 (290,000m<sup>2</sup>) and an adjoining Heuweloord Extensions 18 and 19 ( of 30,000m<sup>2</sup>), have raised the profile of the broader Monavoni Region, and have demonstrated the developmental need and potential of this part of the City.



This potential and opportunity is confirmed in the findings of the Monavoni and Western Farms Development Framework (2008).

Adjoining the Monavoni Precinct, south of the N14 are the Olievenhoutbos townships. Olievenhoutbos is the only large scale affordable housing development in Region 4 with a current population of roughly 40,000 residents. Development of the Monavoni Precinct will provide immediate opportunities for job-creation, employment, recreation and social facilities to the Olievenhoutbos residents.

#### Local Context

The Monavoni Precinct is located north of the existing N14 Highway and enjoys good regional connectivity. The Precinct is contained within the boundaries of the existing N14 Highway linking the City of Tshwane with Mogale City, and the proposed PWV9 Highway linking the northern suburbs of Johannesburg with the south west of Tshwane.

Two, existing east-west linkages, the M34 and the K52, run through the precinct, connecting it with the Centurion Metropolitan Node. The M34 (Ruimte Road), divides the precinct into a northern and southern section and the K52, to the far-north of the precinct, will feed vehicular movement into the precinct, from the proposed PWV9 Highway. The precinct plan proposes new north-south linkages across the K52 and M34.

The Monavoni Precinct Plan study area is bounded by the N14 in the south, the R55 in the east, the planned K52 and PWV9 in the north and west respectively. It comprises of some 1000 ha.

#### Opportunities of the Monavoni Precinct

- The Precinct forms part of the southern gateway that connects Tshwane with Johannesburg and Mogale City.
- The Precinct enjoys excellent regional accessibility via the N14, R55 and the planned PWV9.
- The precinct enjoys high levels of visibility.



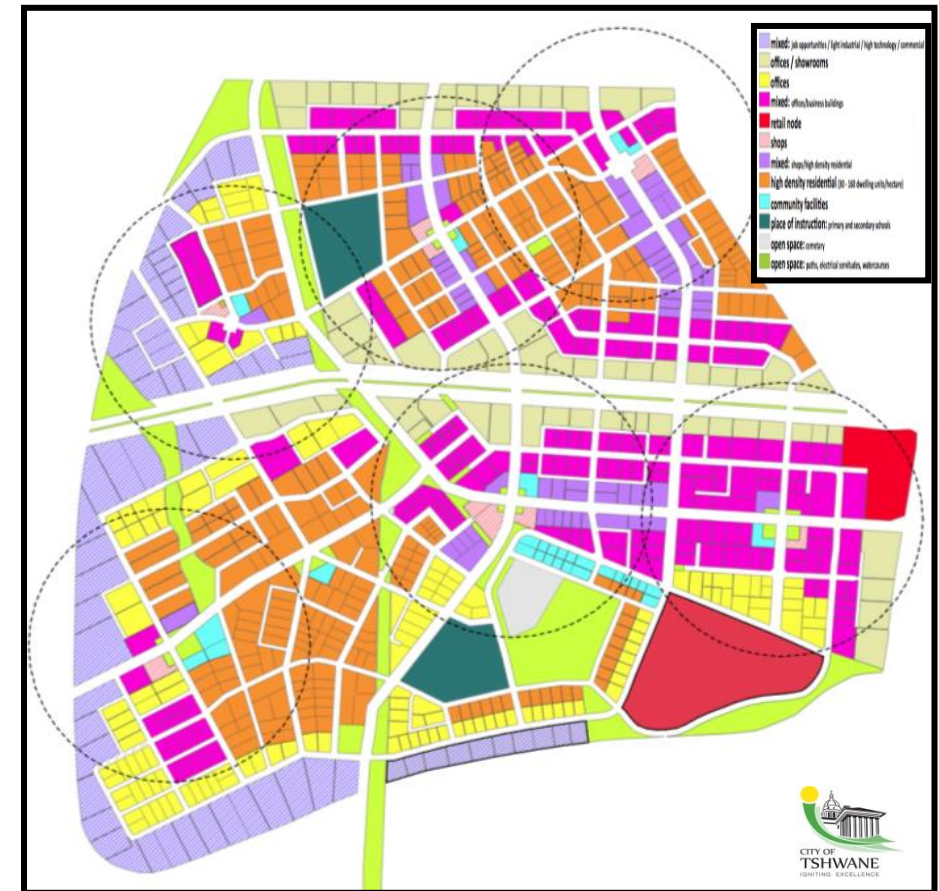
- The area can accommodate well-developed, good quality residential areas.
- The precinct has attracted private sector investment.
- assembly for large-scale developments.
- The development of the PWV 9 will complete the ring road system around the metro and improve accessibility at a regional level.
- Monavoni can provide economic and employment opportunities for Olivenhoutbos residents and surroundings
- 

### Land uses in the Monavoni Precinct

A broad range of land uses and activities are proposed for the Monavoni Precinct:

- High density and mixed uses at local district centres and along their connecting corridors, such as: apartments, offices, shops and public amenities.
- Freeways and K-routes (Class 2 roads), are edged by large footprint uses: commercial, light industrial, showrooms and high technology capitalising on the visibility, exposure and access
- Local district centres are primarily surrounded by community facilities or public amenities, with a mix of shops, businesses, offices and high-density residential
- Primary residential areas are located away from local district centres and their immediate connecting corridors.
- A large, regional retail node is proposed for the south-eastern corner of the precinct. It is anticipated that the Monavoni Ext 39 and Heuweloord Ext 12 developments will have an influence on the local district attracting larger business and commercial interests compared to other local districts.

- Limited number of landowners in the precinct improves likelihood of realising the vision and eases the implementation process.
- The precinct comprises of private smallholdings permitting ease of
- Proposed Schools and Educational facilities have been positioned in close or direct proximity to residential areas and public open spaces.



### 5.1.4 OLIEVENHOUTBOS URBAN DEVELOPMENT FRAMEWORK

#### Local Context

Olievenhoutbos is ideally located within Region 4 with close access to major routes. The N14 highway is directly to the north of the township and the R55 divides the township in an eastern and western portion. The Monavoni Precinct, which includes the Forest Hill Mall is situated to the north of the township and provides immediate opportunities for job-creation, employment, recreation and social facilities of approximately 290 000m<sup>2</sup>. To the south of the township is newly developed local retail centre, Olievenhoutbos x 38, which currently provides in the retail needs of the residents. Two other local nodes have been provided in Extension 36 and 40 respectively. Provision was also made for business opportunities on a smaller scale throughout the area. However the economy within the township is mainly reliant on income earned outside the township and opportunities on a small and local scale is needed to address the high rate of unemployment and stimulate local entrepreneurship.

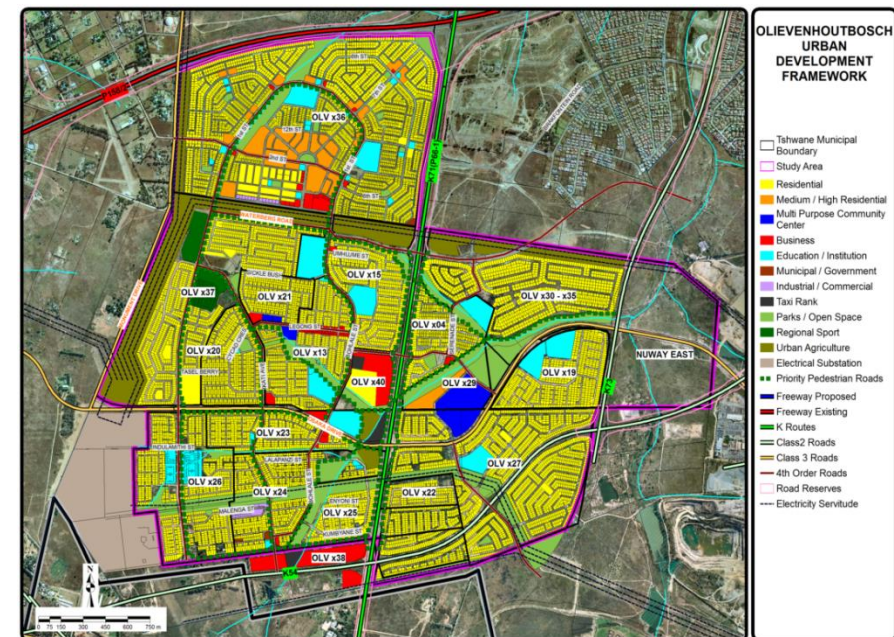
Olievenhoutbos comprises of mainly subsidized residential developments with small scale supporting commercial-, social- and recreation opportunities. The majority of the housing development at present comprises of single residential stands and provision was made for higher density developments especially in Olievenhoutbos Extensions 36, 37 and 27, development of these properties are foreseen in the near future and the stands earmarked for social amenities to support the increased densities need to be protected for that particular purpose. Various properties have been earmarked for social and recreation purposes, but only a few of such facilities are developed. Olievenhoutbos lacks a strong physical structure, identity and activity spines with continuous pedestrian movement and access to public transport and social amenities.

#### The Tsosoloso Programme

The Tsosoloso Programme envisioned the following key points for Olievenhoutbos:

- Transform places and spaces by creating community active centres and improving the pedestrian environment.

- Provision of quality public facilities and amenities to create community pride with a strong structure and points of interest.
- Providing public transport facilities which become a social hub. Olievenhoutbos x 40 has been identified for these purposes where the taxi rank will form part of a retail centre.
- Physical upgrading and enhancement - Vibrant, liveable, durable and beautiful urban environments. Two multi-purpose recreation and community facilities have been earmarked in extension 37 and 27 (east and west of the R55) respectively.



## 5.2 EXISTING PRECINCT PLANS

Previously a number of precinct plans and policies have been developed for areas within the region which are in line with the CDS and MSDF. The following list of policies and plans with their main proposals are included as part of this framework:

Monavoni and western farms development framework 2020, approved 2008  
LSDF for Laudium/Claudius/Erasmia/Christoburg, approved 2009

## 5.3 REQUIRED PRECINCT PLANS (NON-PRIORITISED)

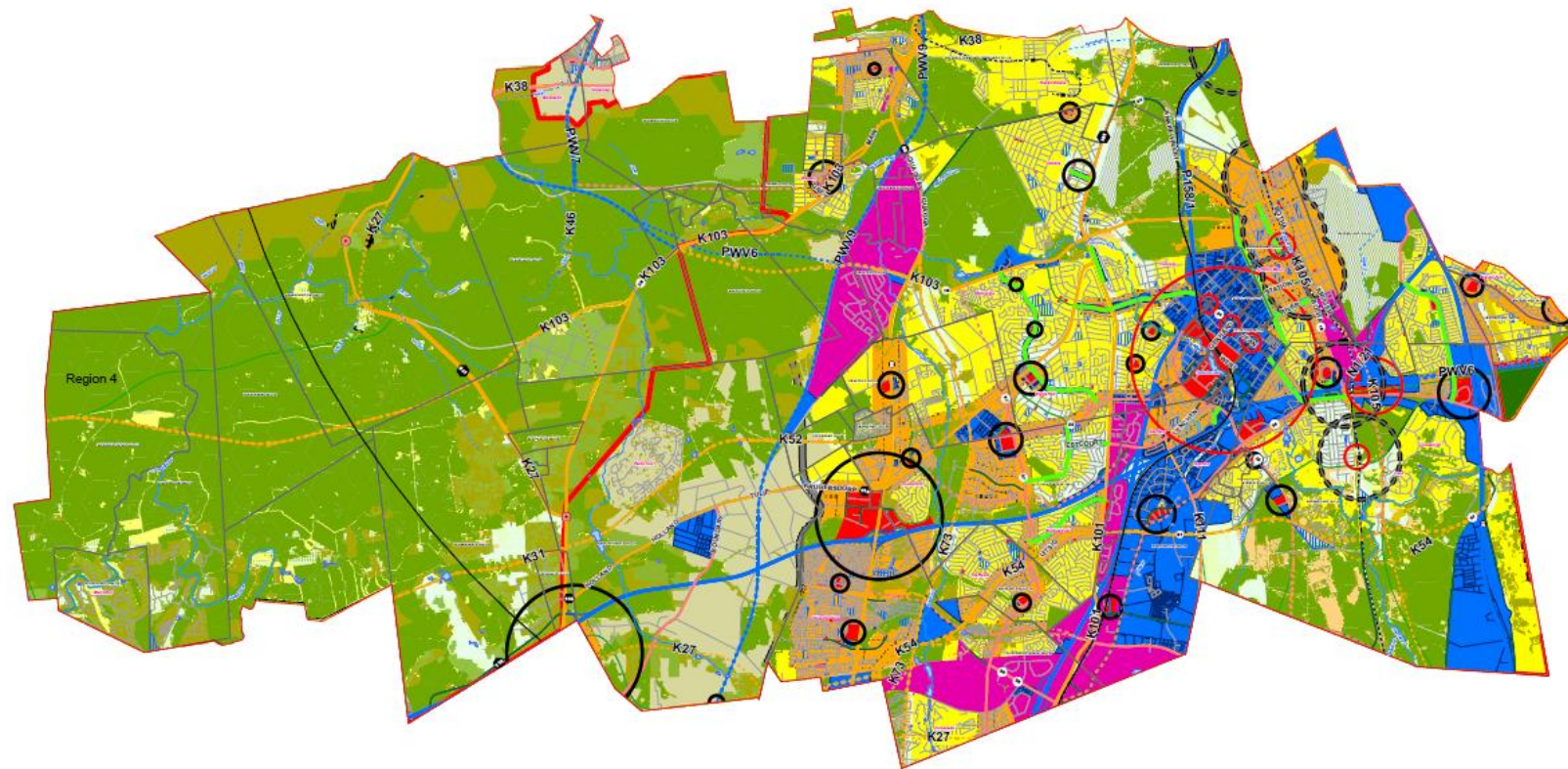
The following are precinct plans that are required to guide the development of specific precincts within the Region. It includes:

- Precinct Plan for Gautrain Station (Centurion)
- Urban Design Framework and Infrastructure Management Framework for the Centurion Metropolitan Core.
- The Lanseria Regional Spatial Development Policy

## 5.4 PLANNING POLICY RATIONALISATION

Spatial Policy	Status	Approval Date	Purpose	Changes in planning Context	Proposed Future of Plan
Tshwane 2050 Integrated Development Plan	Approved		Guidelines regarding development in the city	Status Quo remains	To be retained until revised
Monavoni and western farms development framework 2020	approved	2008	Guidelines regarding development on the Monavoni	Status Quo remains	To be retained
LSDF for Laudium/ Claudius/ Erasmia/ Christoburg	Approved	2009	Guidelines regarding development	Status Quo remains	To be retained
OLIEVENHOUTBOSCH URBAN DEVELOPMENT FRAMEWORK	Approved		Guidelines regarding development	Status Quo remains	To be retained





## Legend

## Density

- Local Nodes
- Transport Orientated Development
- Transport Corridor (BRT phase 1)
- 600m Walking Distance (200ha)
- 700m Walking Distance (120ha)
- Linear Zone
- High Density
- Suburban Density
- Low Density Zone
- Low Density Zone

- Main Rural Roads
- Game / Nature Reserves
- High Potential Agriculture
- Sensitivity Proactive Areas
- Development Edge
- Future Urban Development Areas
- Community Service Centre
- Biodiversity Zone
- Rural

## Land-Use

- Cemetery
- Mixed Uses
- Office
- Airport
- Campus
- Future Nodes
- Future Regional Cemetery
- Retail
- Educational
- Mining

- Water Shed / Development Edge
- Urban Edge 2013
- CBD 25 km Radius
- Proposed IPTN
- Proposed Railway
- Proposed Station
- Landfill

## CBA Categories

- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Area 1
- Ecological Support Area 2
- Other Natural Area
- Protected Area (Formal)
- Community Service Centres
- Community Service Centre
- Human Settlement
- Proposed Rural Service Centre
- Rural Service Centre

## Highways

- Existing
- Proposed

## Activity Spine

- Existing
- Proposed

## Activity Street

- Existing
- Proposed

## Mobility Spine

- Existing
- Proposed

## Mobility Road

- Existing
- Proposed

## Roads Masterplan

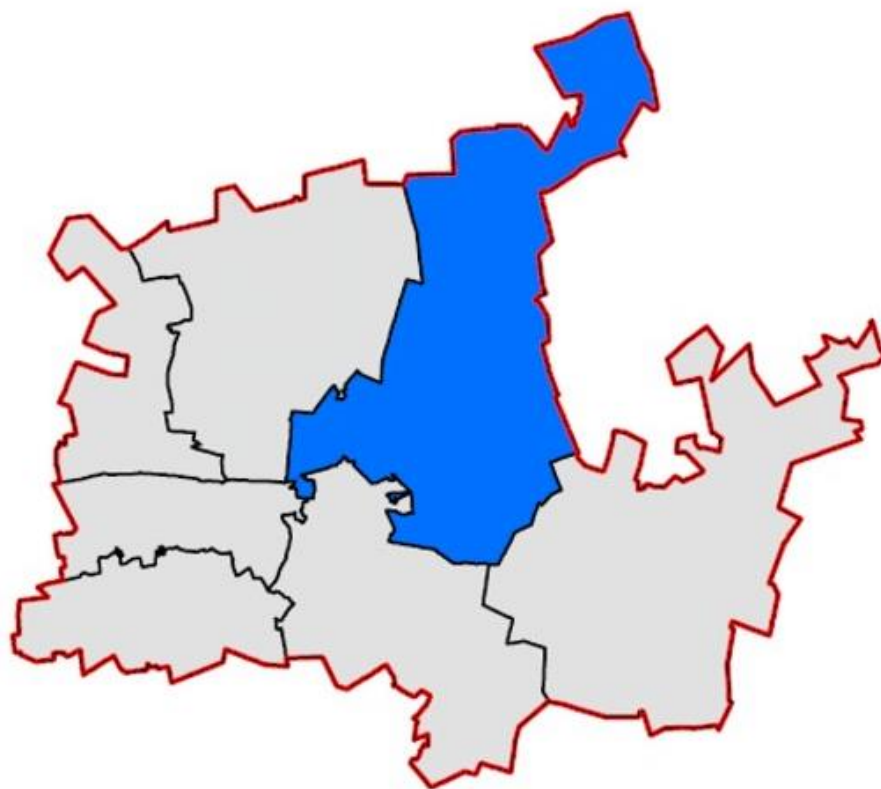
## CLASS

- U1 Class 1\_Primary metropolitan distributor
- U2 Class 2\_Metropolitan distributor
- U3/A Class 3/A\_District distributor
- U3 Class 3\_District distributor



- Cities Network, **Developing a Collective approach to Mixed- Use Development in Transit – Oriented Development Precincts**, June 2016.
- City of Johannesburg, **Complete Streets**, April 2013.
- City of Tshwane, **Comprehensive Integrated Transport Plan 2015 - 2020**, June 2016.
- City of Tshwane, **Integrated Development Plan Region 4 2015/16**.
- City of Tshwane, **Integrated Rapid Public Transport Strategy of the City of Tshwane**, November 2012.
- City of Tshwane, **Rapid Transit (TRT): Spatial Development Policy: Densification and Intensification Guidelines**, March 2014.
- City of Tshwane, **Streetscape Design Guidelines**, August 2007.
- City of Tshwane, **Tshwane MSDF 2012**, June 2012.
- City of Tshwane, **Tshwane RSDF 2013**, March 2014.
- City of Tshwane, **Wetland Management Plan**, March 2016.
- City of Tshwane, **Vulnerability Assessment to Climate Change**, September 2015.
- Gauteng Province, **Gauteng Spatial Development Framework: 2011**.
- Gauteng Province, **Gauteng 25 Year Integrated Transport master Plan** : November 2013
- ITPD, **The Transit Orientated Development Standard**, New York, 2015.
- RSA, **National Development Plan: 2030**, National Planning Commission. 2013
- RSA, **Spatial Planning and Land Use Management Act**, 16 of 2013.
- RSA, **National Department of Agriculture, Norms and Standards for Land uses Change**: 2016
- World Bank, **Transforming Cities with Transit: Transit and Land use Integration for Sustainable urban Development**, January 2013.

## SPATIAL DEVELOPMENT FRAMEWORK 2017: REGION 5





## TABLE OF CONTENTS

<b>ABBREVIATIONS</b>	i	5.1	HERITAGE AND CULTURAL SITES	21
<b>GLOSSARY OF TERMS</b>	iv	5.2	OPEN SPACE AND CONSERVATION AREAS	21
		5.3	RURAL MANAGEMENT	23
<b>PART ONE: INTRODUCTION</b>	1	<b>PART THREE: REGIONAL ANALYSIS</b>		
1.1 BACKGROUND	1	3.1 LOCALITY	25	
1.2 LEGISLATIVE FRAMEWORK	1	3.2 AREA	26	
1.3 APPROACH AND METHODOLOGY	2	3.3 DEMOGRAPHIC INFO	27	
1.4 THE USE OF THIS DOCUMENT	2	3.4 REGIONAL CHARACTERISTICS	28	
<b>PART TWO: METROPOLITAN CONTEXT</b>	4	3.5 STRUCTURING ELEMENTS	28	
2.1 NATIONAL DEVELOPMENT PLAN; 2014	4	3.6 ECONOMIC BASE	29	
2.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011	5	3.7 PHYSICAL ENVIRONMENT	29	
2.3 GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013	6	3.7.1 Natural Structuring Elements	29	
2.4 THE SPATIAL VISION OF THE CITY	7	3.7.2 Strategic Land Uses	29	
2.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK	8	3.7.3 Nodes	29	
2.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY	8	3.7.4 Mixed Use Activity Areas	30	
2.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN	8	3.7.5 Residential Characteristics	30	
3 THE CITY STRUCTURE	10	3.7.6 Movement and Transport Systems	30	
3.1 HIERARCHY OF NODES	10	3.7.6.1 Road Network and Private Transport	30	
3.2 SPECIALISED ACTIVITY AREAS	11	3.7.6.2 Public Transport	30	
3.3 GROWTH MANAGEMENT	12	3.7.7 Service Infrastructure	30	
3.4 URBAN EDGE	13	3.8 KEY ISSUES AND S.W.O.T ANALYSIS	30	
3.5 TSHWANE RETAIL STRATEGY	13	3.8.1 Strengths	31	
4 MOVEMENT AND CONNECTIVITY	14	3.8.2 Weaknesses	32	
4.1 URBAN FORM AND TRANSPORT INTEGRATION	15	3.8.3 Opportunities	32	
4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE IS:	17	3.8.4 Threads	32	
4.3 ENVIRONMENTAL STRUCTURING CONCEPT	21	3.8.5 Role and Function	32	

**PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK**

4.1	INTRODUCTION	36
4.2	METROPOLITAN NODES	36
4.2.1	Cullinan Node	36
4.2.2	Rayton Node	37
4.3	REGIONAL NODES / LOCAL NODES	38
4.4	JOB OPPORTUNITIES	39
4.4.1	Mixed Use Areas	39
4.4.2	Derdepoort	39
4.5	FUNCTIONAL ROAD CLASIFICATION AND ACTIVITY MATRIX	40
4.5.1	Development Guidelines	46
4.6	RESIDENTIAL	52
4.6.1	Concentration Zones	54
4.6.2	Linear Zones (Corridors and Spines)	55
4.6.3	Suburban Densification Zones	55
4.6.4	Low-Density Zones	56
4.7	Rural Divisions	56
4.8	Human Settlements	57
4.9	MOVEMENT SYSTEMS	60
4.9.1	RSDF movement System Proposals	60
4.9.1.1	Rail	61
4.9.1.2	Road network	61
4.9.1.3	Bus Rapid Transit (IRPTN System)	61
4.10	RURAL AREA	62
4.10.1	Major Rural Roads	62
4.10.2	Urban Edge	62
4.10.3	Development Edge	63
4.10.4	Future Urban Development Areas	63
4.10.5	Management Zones	64
4.10.6	Agricultural High Potential Areas	64
4.10.7	Sensitive Protected Areas/Biodiversity Zone	64
4.10.8	Sensitive Ridge Areas	65

4.10.9	Heritage and Cultural Protected Areas	65
4.10.10	Tourism Potential Places/Areas	65
4.10.11	Conservancies	66
4.10.12	Game and Nature Reserves	66
4.10.13	Mines and Places of Manufacturing	67
4.10.14	Human Settlements	67
4.10.15	Community Service Centres	68
4.11	OPEN SPACE AND ENVIRONMENTAL AREAS	70
4.12	WETLANDS	74
4.13	SOCIAL FACILITY PLANNING	75

**PART FIVE: DETAIL PRECINCT PLANS**

5.1	EXISTING PRECINCT PLANS	78
5.1.1	Cullinan Node	78
5.1.2	Rayton Node	80
5.1.3	Refilwe Node	81
5.2	PLANNING POLICY RATIONALISATION	82

PART SIX: REFERENCE	84
---------------------	----

BRT

- Bus Rapid Transit

CBD

- Central Business District

COT

- City of Tshwane

EMF

- Environmental Management Framework

GLA

- Gross Leasable Area

GSDF

- Gauteng Spatial Development Framework

GITP

- Gauteng 25-Year Integrated Transport Master Plan

IDF

- Integrated Development Framework

IDP

- Integrated Development Plan

ITP

- Integrated Transport Plan

LSDF

- Local Spatial Development framework

MSDF

- Metropolitan Spatial Development Framework

NDF

National Development Plan, Vision for 2030.

NMT

- No Motorized Transport

UP

- University of Pretoria

RSDF

- Regional Spatial Development Framework

SDF

- Spatial Development Framework

SPLUMA

- Spatial Planning and Land Use Management Act, 16 of 2013.

SPTN

- Strategic Public Transport Network

TOSF

- Tshwane Open Space Framework

ZOC

- As per CDS: Zone of Choice

**ACTIVITY NODES**

- Areas of concentration of mixed land uses.

**ACTIVITY SPINES**

- Mobility routes connect a number of nodes or mixed use areas, serving as the main public transport channels of the region. These routes could support linear development although not necessarily continuous along its length. Higher order land uses should be accommodated in the nodes, but lower order land uses could develop in a linear fashion subject to alternative access opportunities. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes.

**ACTIVITY STREETS**

- Local collector roads supporting lower order land uses in a linear fashion along its length. Direct access to land uses is provided compromising mobility for activity. Development along activity streets should be permitted in accordance with a local spatial development framework.

**CAPITAL CORE**

- The Tshwane Inner city is identified as the Capital Core as it is the city's first order node amongst all metropolitan nodes. Traditionally, the inner city is also the Central Business District (CBD) of major cities. Tshwane is no different.
- Historically, the inner city was the geographic heart and centre of what is now the Tshwane area. Over time, though, due to the extension of the Tshwane boundaries, the Inner City is no longer geographically central, but still plays a very important role with regards to the concentration of retail, office and government buildings to be found in the area.
- The Capital Core must:
  - Be the focal point for housing government departments
  - Be developed to a higher than average density, supporting all principles of smart growth.

**CITY OF TSHWANE METROPOLITAN MUNICIPALITY LAND USE MANAGEMENT BY –LAW**

- To give effect to “Municipal Planning” as contemplated in the Constitution of the Republic of South Africa, 1996, and in so doing to lay down and consolidate processes and procedures, to facilitate and make arrangements for the implementation of land development and land development applications, spatial planning and a Land Use Scheme within the jurisdiction of the City of Tshwane, in line with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013), to provide for the processes and procedures of a Municipal Planning and Appeals Tribunal and to provide for matters incidental thereto.

**COMPACT**

- Compact urban form increases efficiency in the way people can use the city and in the way the city is managed. More people live in a smaller area in a compact city and this higher density allows for efficient provision of public transport, social and other services. The opposite of a compact city is urban sprawl.

**CONCENTRATION ZONES**

- The Concentration Zones are the primary focus areas for high density, medium to high-rise residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

**COT**

- City of Tshwane.

**DENSIFICATION**

- Increase of residential density following the guidelines of the Densification and Compaction Strategy, May 2005.

## EMERGING NODES

- Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

## INDUSTRIAL

- As referred to on the framework plans includes: light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

## INFILL

- The development of undeveloped or underdeveloped land within a developed urban area with infrastructure available.

## INNER CITY

- An area in the City of Tshwane comprising the Pretoria Central Business District and surrounding residential areas.

## INTENSIFICATION

- The process of intensifying activities or land use by increasing floor area, height or number of activities.

## LIVABLE STREETS

- Liveable Streets are defined as streets for everyone that are planned, designed, and operated to enable a network of safe access for all users including pedestrians, bicyclists, and transit riders

## LINEAR ZONES

- As per Densification and Compaction Strategy referring to activity spines and linear channels forming a lattice of movement.

## LOWER ORDER LAND USES

- Land uses that are not usually associated with high impact on the surrounding environment and with low traffic generating characteristics.

## METROPOLITAN NODES

- These are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the Tshwane context, Metropolitan nodes are those nodes within the City (economically) benefiting primarily from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment.
- Such localities are also where the most extensive land use rights, including densities, are likely to be supported, in line with the growth management strategy.

## MIXED USE

- Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional ect. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. A mixed-use could refer to retail at street level, institutional on the floor above and residential on the upper floors, or only use per erf. Principles regarding retail, commercial and industrial uses / rights are still applicable as indicated in this document. Mixed land use in an industrial area could include industry, commercial and retail uses.

## NODES

- A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport nodes such as railway stations

and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

#### PUBLIC TRANSPORT FACILITIES

- Including train stations, taxi and bus facilities with ancillary uses.

#### SPLUMA

- Spatial Planning and Land Use Management Act, 16 of 2013.

#### SUBURBAN DENSIFICATION

- As per Densification and Compaction Strategy: Residential densification in areas that are not located in concentration zones of along linear development spines.

#### SUSTAINABLE DEVELOPMENT

- Development that has integrated social, economic and environmental factors into planning, implementation and decision-making, so as to ensure that it serves present and future generations.(In terms of SPLUMA Objectives)

#### SUSTAINABLE HUMAN SETTLEMENTS

- The term 'sustainable human settlement' refers to a spatial concept
- That has two areas of emphasis: 1) human 2) sustainable. In terms of SPLUMA Principles)

"The human-centred approach emphasises that a central purpose of planning is to ensure that the developmental needs and activities of people living in settlements are catered for and, in particular, that Opportunities for people to achieve their full potential are maximised through their own efforts. This approach, rather than being purely

cost- or technology-driven, is people-driven and democratic". It makes such settlements socially, politically and economically sustainable. But there is also the dimension of environmental sustainability.

#### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)

- Transit-oriented development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (train station, metro station, tram stop, or bus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs generally are located within a radius of one-quarter to one-half mile (500 to 700 m) from a transit stop, as this is considered to be an appropriate scale for pedestrians.

#### URBAN CORES

- Former township areas were developed as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme Grant (NDPG) is a nationally funded programme that aims to address the improved quality of environment in urban cores.



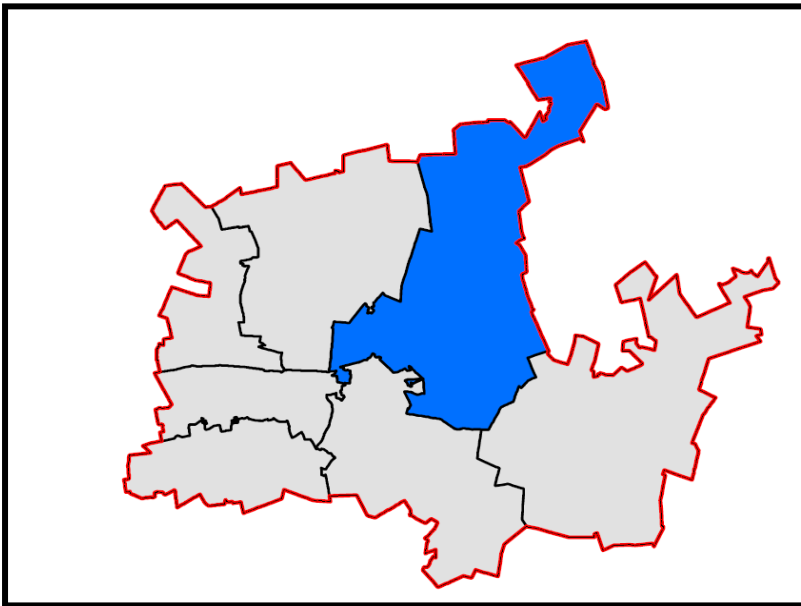
## 1. INTRODUCTION

### 1.1 BACKGROUND

The City of Tshwane (COT) embarked on processes to compile seven Regional Spatial Development Frameworks (RSDF's) for the administrative planning regions of the metropolitan area in 2011.

The RSDF's needed to be inter-linked and also support the Tshwane Metropolitan Spatial Development Framework (MSDF) of 2017 as well as the Tshwane City Development Strategy (CDS), Tshwane Densification and Compaction Strategy (2005) and Tshwane Open Space Framework.

This RSDF for Region 5 was therefore prepared within the context of the MSDF, the City Development Strategy and in support of the other RSDF's.



### 1.2 LEGISLATIVE FRAMEWORK

- The Municipal Systems Act, 5000 (Act 32 of 5000) determines that a municipality must adopt a framework for integrated development in its area in the form of an Integrated Development Plan (IDP) (Section 27).
- A Spatial Development Framework, which guides and informs all development forms part of the IDP (Section 35 (2)).
- The Gauteng Planning and Development Act, 2003 (Act 3 of 2003) determines that municipalities must formulate spatial development frameworks for their areas (Section 31 and 32).
- The content of these plans “shall be in the form of maps or a map together with explanatory report of the desired spatial form of the municipality”.

A Spatial Development Framework must:

- Indicate where public and private development infrastructure investment should take place.
- Indicate desired development and land use patterns for different areas.
- Indicate where development of particular land uses should be discouraged or restricted.
- Provide broad indication of the areas where priority spending should take place.
- Shall provide guidelines for development and land use decision-making by the municipality.

This Regional Spatial Development Framework was prepared in accordance with the above mentioned provisions.

### 1.3 APPROACH AND METHODOLOGY

The approach to the preparation of the RSDF was based on the following approved policy and plans:

- National Development Plan; 2014
- Gauteng Spatial Development Framework: 2011.
- Gauteng 25- Year integrated Transport Master Plan : 2013
- The MSDF objectives, vision and supporting strategies as well as development issues were used to inform the role and function of the region. (MSDF 2017).
- City of Tshwane, Rapid Transit (TRT): Spatial Development Policy: Densification and Intensification Guidelines, 2014 .
- The City of Tshwane Comprehensive Integrated Transport Plan: 2016
- The City of Tshwane Bioregional Plan: 2016.

The framework was also based on best practices applied internationally on the development of MSDF / RSDF. See references used at the end of the document in the compilation of the framework. Further this framework has been compiled inter alia in terms of the relevant provincial legislation and the Spatial Planning and Land Use Management Act, 16 of 2013.

The RSDF 2017 : Region 5 was prepared in accordance with the following mentioned principles.

- Indicate where densification should take place and promote economic and social inclusion. (SPLUMA , Objectives and Principles 7(a))
- Indicate how urban regeneration should take place in the Region in order to stimulate land markets (SPLUMA, Objectives and Principles 7(a)).
- Indicate where public and private development infrastructure investment should take place. (SPLUMA , Objectives and Principles 7(a))
- Indicate desired development and land use patterns in the Region 1 in order to achieve mixed income housing, community, educational and job opportunities that support the Bus Rapid Transit system. SPLUMA , Objectives and Principles 7(a))
- Provide for the opportunity to walk and cycle in the Region and move away from car orientated planning.

- Provide broad indication of the areas where priority spending should take place in the Region and what the impact on services will be. (SPLUMA , Objectives and Principles 7(a))
- Shall provide guidelines for development and land use decision-making by the municipality in the Region 5.

This framework obtains its guides, objectives and principles from the relevant National, Provincial and Local Planning Policies as prescribed by the Spatial Planning and Land Use Management Act, 16 of 2013. In the following section the different policies and guidelines are discussed that are applicable to corridor planning.

### 1.4 THE USE OF THIS DOCUMENT

As a point of departure in terms of the governance model adopted by Council, it should be understood that no decision on site specific development application can have the effect of materially amending the RSDF's or undermine the IDP with reference to section 35 of the MSA.

The burden on a local authority in the preparation of the IDP and the SDF's with regard to public participation limits the power of a local authority to, without proper consideration amend, undermine or redirect policy. The citizenry within the jurisdiction of the City of Tshwane has the right to be able to rely on the content of the IDP and SDF's and any amendment thereto should not be taken lightly.

In particular, no development proposal may undermine the budgetary provisions contained in the IDP read with the SDF. Should such development proposals have merit, they should be tested against the overall objectives of the policy documentation and formally incorporated to ensure integrated, funded and sustainable development takes place, that reach the objectives set out in the policy documents. The RSDF's indicate where and how discretionary powers are granted to deal with applications on merit. A merit deviation should be based on specific criteria or threshold requirements, which requirements shall in the sole opinion of the local authority be complied with, in order to deviate or amend the RSDF or any component thereof. Keeping in mind that if it is so material as to impact on the overall objectives of the SDF's or IDP, that it can only be formally amended by the legislative body of Council, with public participation.

## MAPS AND PRINCIPLES

The different principles as indicated in Chapter 4 must be interpreted per Map and against the principles as specified in the document. For Example density applications will be evaluated according to the density map and accompanying principles as specified in chapter 4. Alternative land uses and activities will be evaluated according to the movement and activity map and accompanying principles. The composite map at the end of the document must only be regarded as a schematic representation of the principles.

## INFRASTRUCTURE

Development proposals, whether in line with these documents or on merit, should only be supported if infrastructure to the satisfaction of the local authority can be provided in line with the overall IDP. This should include the provision of infrastructure by developers that may have an impact on the operational budget of Council. The availability of infrastructure shall not be regarded as sufficient support for a development proposal. The prioritisation and provision of infrastructure is within the sole discretion of the local authority and shall be considered and evaluated based on accumulative impact and prioritisation of resources.

## TRANSITIONAL ARRANGEMENTS

In order for the City of Tshwane to ensure that pending applications that were submitted in line with the rescinded MSDF/SDF's or RSDF's to be substituted by the reviewed MSDF and RSDF's, to be effectively and efficiently evaluated against policy the following transitional measures shall apply:

Any development application which relied on the provisions of the MSDF's or RSDF's in support of consideration of the said applications, that are pending before the City of Tshwane at the time of the adoption by Council of the reviewed MSDF's and RSDF's, shall be dealt with as if these revised documents have not been adopted.

These pending development applications shall be finalised based on the policy provisions contained the rescinded MSDF's and RSDF's or any component of these documents; provided that where applications are pending before the local authority and the reviewed MSDF's and RSDF's are

in support of an application that the local authority in their sole discretion and interpretation of whether in support or not, the application may be considered against the reviewed MSDF's and RSDF's. This provision shall not be applicable if the application by evaluation against the reviewed MSDF's and RSDF's shall have the result of negatively impacting on the rights of an applicant.

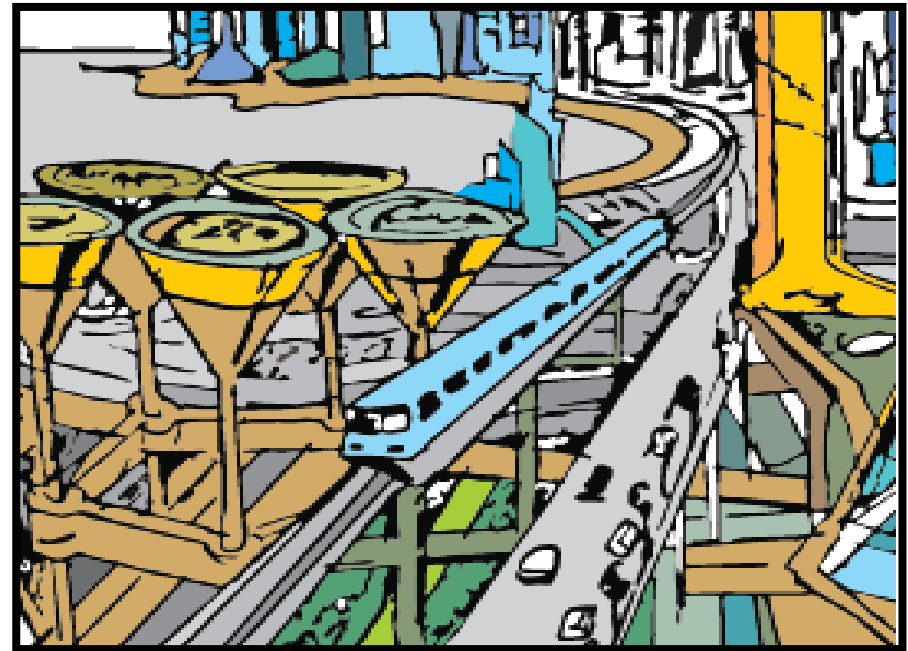
The RSDF is not the sole mechanism in determining the suitability of any potential change in land use, but should be used in conjunction with requirements as may be determined by infrastructure and other relevant aspects that may not be contained in the RSDF.

## 2. PART 2: METROPOLITAN CONTEXT

### 2.1 NATIONAL DEVELOPMENT PLAN; VISION FOR 2030: 2014

The overarching principles for spatial development in terms of the National Development Plan (pg. 246) is that all spatial development should conform to the following principles:

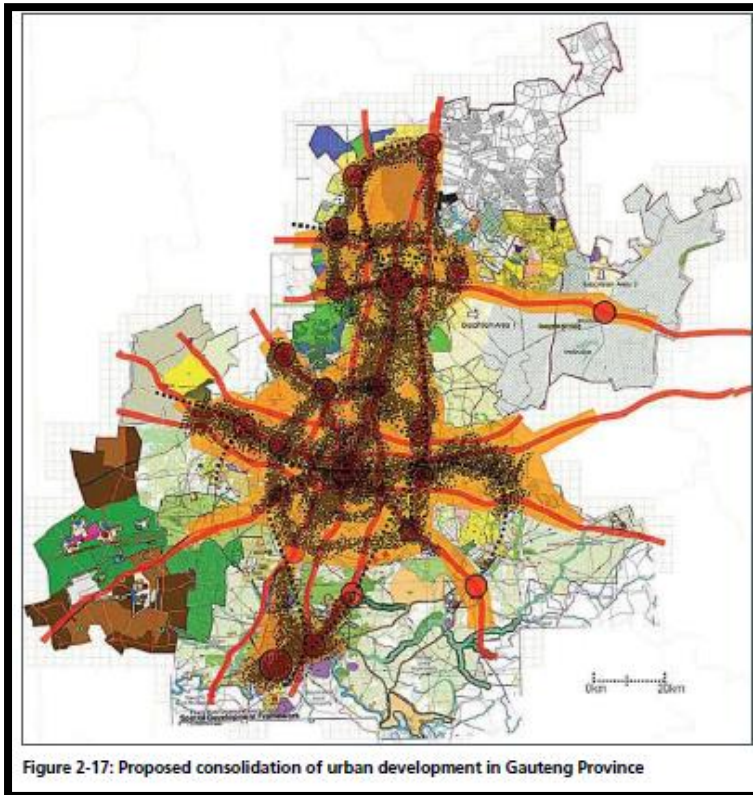
- **Spatial justice** – Unfair allocation of public resources between areas must be reversed and the confining of particular groups to limited space must be abandoned. The **increasing of urban population density** while improving the liveability of the cities, providing affordable public transport, it is seen as a complementary strategies to this principle (pg. 16). Transportation networks are seen as the key to spatial transformation (pg.238) and the accommodation of diverse household types is encouraged. (pg. 254).
- **Spatial sustainability** – Sustainable patterns of consumption and production must be supported and ways for living that do not damage the natural environment. **Walkable neighbourhoods**, for example, reduce the need to travel and limit greenhouse gas emissions. In terms of this principle a clear strategy for densification of cities through land use-use planning is proposed (pg. 33).
- **Spatial resilience** – Reduce the vulnerability to environmental degradation, resource scarcity and climate shocks. Ecological systems should be protected and replenished and support the transition to environmental sustainability (pg. 256)
- **Spatial quality** – The aesthetic and functional features of housing and the built environment need to be improved to create **more liveable, vibrant and valued places**. Prioritising public transport and the **discouragement of private car** users is seen as one of the strategies in terms of this principle (pg.164).
- **Spatial efficiency** – Productive activity and **job creation must be supported**. Efficient commuting patterns and circulation of goods and services must be encouraged. Further procedures must not impose unnecessary costs on development. Unlocking development potential is seen as part of the spatial vision of the development plan (pg. 247)





## 2.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011.

**G2055** initiative is an initiative aimed at preparing the Gauteng City Region for a population of approximately 28 million people by 2055. The G2055 vision is for Gauteng to have a strong knowledge capital, be the hub of innovation to Africa, and be a liveable, prosperous, competitive, equitable, accessible and sustainable City region. The initiative is spatially addressed in the Gauteng Spatial Development Framework (approved in February 2011).



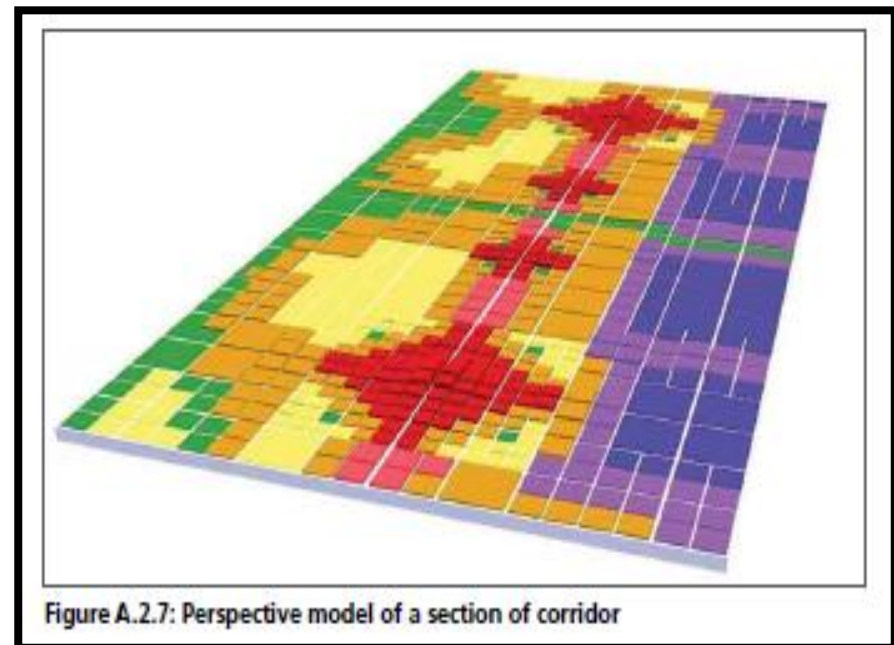
Source: Gauteng Spatial Development Framework: 2011

The Gauteng Spatial Development Framework (GSDF) provides a common future spatial structure for the Gauteng Province and is clear on the fact that growth must be structured and directed (pg. 10).

The primary structuring elements identified within the GSDF are those of:

- urban mixed-use activity nodes
- open space and green system
- public transit and movement routes
- urban corridors and activity spines

Given the comprehensive system of discernible urban corridors and public transport potential within Gauteng, consolidation of **urban development should be concentrated around existing primary urban centres, urban nodes, and urban corridors** and along urban activity spines. (pg.52)



Source: Gauteng Spatial Development Framework: 2011

In terms of corridor development the GSDF seeks to achieve the following:

- The containment of urban sprawl by way of growth management that seeks to advance compaction, **residential densification**, and in-fill development, and mixed land uses within the existing urban fabric will promote walking and cycling (pg. 65).
- the social and **economic integration** of disadvantaged communities into the urban system, particularly those on the urban periphery;
- the establishment of a hierarchy of nodes coupled with the improvement of **linkages and connectivity** between these nodes and areas of economic opportunity (pg. 86);
- **land use-public transport integration** through nodal and corridor development (pg.96)
- the promotion of viable public transport systems and **reduction of reliance on private mobility** with strong emphasis on **densification along the priority public transport routes**, especially rail and BRT routes which form the basis of the IRPTN movement system (pg. 83);
- public transport routes become the priority areas for **densification** and infill development;

Evident from these principles is the strong emphasis on public transport becoming the basis of the 'Movement system' in the province, and urban corridors, activity spines and public transport routes. Creating the framework for future processes of **densification** and intensification, including Transit Oriented Development (TOD) comprising mixed uses around road and rail based public transport facilities (pg. 136).

### 2.3. GAUTENG PROVINCE, GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013

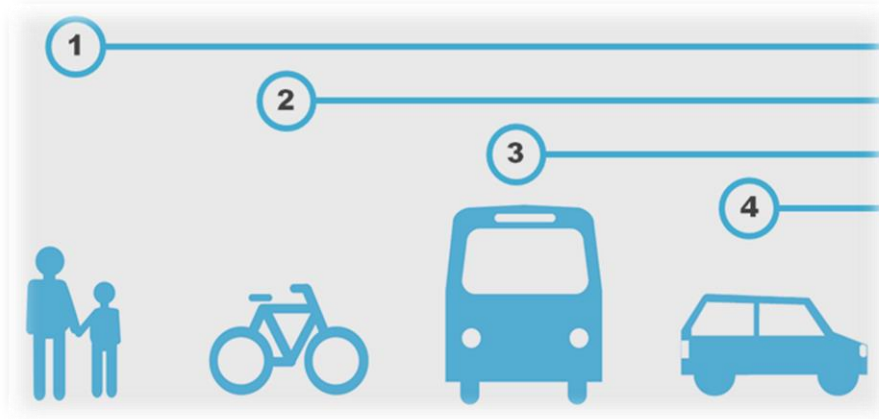
The plan proposes a radical paradigm shift in spatial and transport planning. It serves as a point of departure from apartheid spatial planning, land use and mobility patterns and ushers in an innovative way of structuring our future societal development. It serves as a road map for more detailed planning, particularly in public transport, land use, human resource development and socio-economic development. It is underpinned by founding principles such as economic beneficiation; doing things in a smart and sustainable manner; and integrating transport networks, modes and services interventions" have been identified of which the following two clusters relate to BRT corridor planning (pg.23)

- Land Use Development  
Subsidised housing provision within urban core areas  
Land use densification in support of public transport;
- Strategic Public Transport Network  
Mainstreaming non-motorised transport (NMT)  
Reinforcing passenger rail network as the backbone of the system  
Extending the integrated rapid and road-based public transport networks

The Promote NMT as part of a sustainable transport system, e.g. include NMT (walking and cycling) as a feeder system to all public transport systems. Redesigning and/or creating a built environment (urban and rural) to inclusively accommodate NMT users according to universal design principles as may be appropriate in terms of social and economic objectives (pg.71).



**Diagrammatic representation of the modal hierarchy approach depicting an operational Category that favours the NMT modes**



Source: Gauteng 25 Year integrated Transport master Plan: 2013

Extensive land use densification and more efficient land use and transportation integration around the provincial public transport network will make a significant contribution towards enhancing the viability of public transport in the province. This would require large scale processes of infill development, densification and redevelopment of older urban areas in the province and the containment of urban sprawl by way of a comprehensive urban development boundary for the Gauteng City Region. Developing spatial compacts which promote processes of densification, intensification and infill development within the existing urban footprint of towns and cities. (pg. 136).

Municipalities should seek to achieve the following density guidelines in various functional areas:

- High Density: 80 units per hectare and higher within 1 kilometre from the provincial IRPTN network and activity nodes served by this network;
- Medium Density: 30 to 79 units per hectare within 1 kilometre from the remaining provincial

In terms of the Provincial Transport Master Plan all municipalities in Gauteng should identifying priority nodes/areas along these corridors and **compile detailed Precinct Plans** for these areas (pg.32). The plan should be based on the following:

- Promote processes of densification and infill development.
- Reserving a percentage of spare bulk engineering services capacity to accommodate development along priority public transport corridors.
- Relaxing parking requirements for higher density developments along public transport Corridors.
- Facilitating and promoting non-motorised transport within the priority public corridor development areas by way of dedicated pedestrian and cycling lanes.
- Charging users for parking directly as opposed to hiding the true cost of parking in increased rent or tax subsidies.
- Improving public transport infrastructure significantly and subsidizing public transport costs.
- Road space reallocation aiming to re-balance provision between private cars and more sustainable modes.

## 2.4 THE SPATIAL VISION OF THE CITY

The Spatial Vision of the City of Tshwane is to conduct integrated planning, maximising on spatial efficiencies for optimal service delivery.

- A Spatially Efficient Capital City that is Sustainable, Competitive and Resilient:
- Sustainability: Optimising the use of land through densification, infill and consolidation, resulting in a city with spatially integrated equal opportunities, correcting spatial imbalances, creating sustainable settlements and advancing social equity.

- **Competitiveness:** Instilling investor confidence by ensuring a well-managed quality built environment through enforcement of relevant legislation, maintenance and management of infrastructure and strategic investment in infrastructure focus areas targeting broad-based economic growth.
- **Resilience:** Being innovative and adaptable, whilst maximizing spatial opportunities and in turn maximizing economic growth opportunities through strategic investment decisions.

## 2.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK. (2017)

The MSDF represents the spatial interpretation of desired growth and development directions for the City. It spatially focuses economic and infrastructure development and gives spatial expression to the development plans above (CDS and IDP), both for the long-term and the medium term.

The purpose of a metropolitan spatial framework for the city is to provide a spatial representation of the city vision and to be a tool to integrate all aspects of spatial (physical) planning such as land use planning; planning for pedestrian movement vehicular and other movement patterns; planning regarding buildings and built-up areas; planning of open space systems; planning of roads and other service infrastructure; as well as to guide all decision-making processes regarding spatial (physical) development. It is the intention of the MSDF to restructure our fragmented, inequitable and inefficient urban form to create a more equitable, efficient and environmentally and financially sustainable urban dispensation in line with current legislation and policy.

The compaction and functional integration of the city are normative directives from national level, and implies:

- higher density urban development,
- greater mixing of compatible land uses and
- focussed concentration of high-density residential land uses and intensification of non-residential land uses in nodes,

around transit stations (such as the Gautrain, BRT, Rail and other formalised intermodal transport facilities).

## 2.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY (APPROVED 21 NOVEMBER 2012)

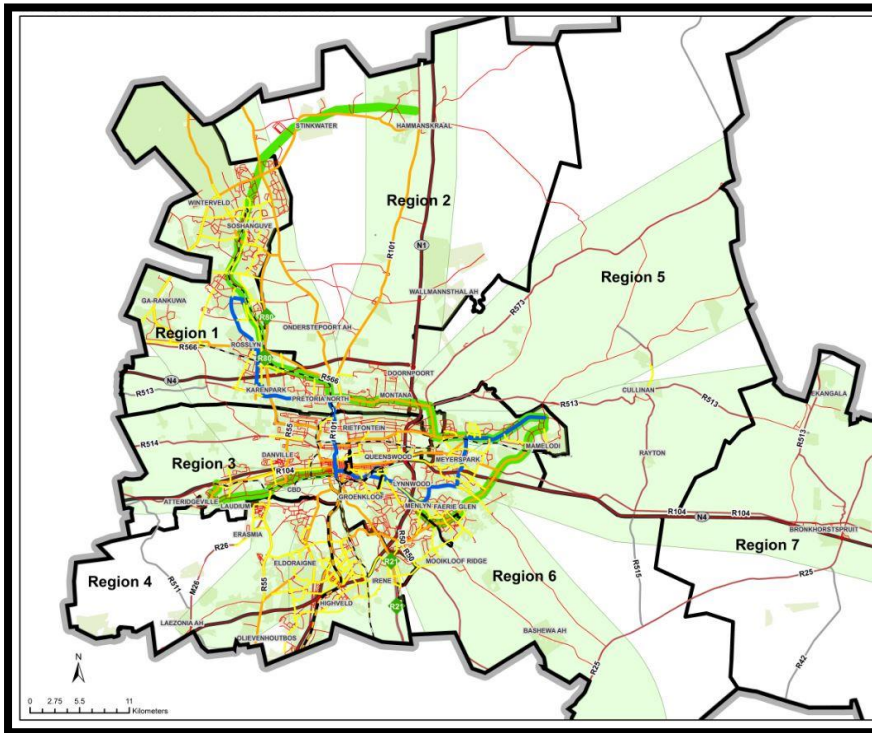
The purpose of the Policy is to provide the City with Operational guidelines for the IRPTN network. The document also provides guidelines in terms of the preparation of planning for IRPTN corridors. The key characteristics of strategy include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 500 - 900 metres of a transit station
- Reduced parking ratios for private cars.

## 2.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN (CITP) (APPROVED 6 JUNE 2016)

The Comprehensive Integrated Transport Plan set out the transport goals and objectives for the City that are aligned with the City's mission and are the targets which the City aims to achieve:

- Plan and develop a transport system that improves accessibility and mobility whilst **enhancing social inclusion**;
- Provide a fully integrated public transport system;
- Develop a transport system that drives economic development;
- Improve the safety and security of the transport system;
- Develop a transport system that reflects the image of the city;
- Develop an efficient, effective, development orientated public transport system and **integrates land use and public transport plans**;
- Develop a transport system that is environmentally sustainable.



The CIP is built on the following five key pillars. A few policies and strategies are provided for each pillar as a means of illustration:

- I. Sustainable transport:
  - Provide a transport system with low negative environmental costs yet high positive social value, which supports resource efficient economic development.
- II. Public-transport orientated:
  - **Prioritising public transport and Non-Motorised Transport (walking and cycling) over private transport;**
  - Provide public transport access to all residents, including tourists and visitors

- **Landuse to support and promote public transport** e.g. linking economic nodes with public transport, **increase land-use densities along routes** and around modal transfer facilities.
- III. Integrated transport:
    - Integration of land-use with transport, e.g. **densification along public transport corridors;**
    - Integrated planning and implementation between City of Tshwane departments, as well as between the City and other national and provincial authorities.
  - IV. Transport in support of a Smart City:
    - Affordability and accessibility of technology e.g. use of electronic communication connections for transport, safety and security (urban traffic control, passenger information, CCTV cameras, etc.);
    - Being “smart” by using scarce resources more effectively and through the application of suitable technology e.g. automatic fare collection using smart cards;
    - Provide modern public transport modes e.g. BRT, LRT, Gautrain.
  - V. People-friendly:
    - **Social inclusion, with an emphasis on access**, through the availability of public transport, to opportunities and services;
    - Provide affordable, easy to use, safe and secure public transport, including universal access and **facilities for walking and cycling.**

### 3 THE CITY STRUCTURE

The CoT covers an area of 6260 km<sup>2</sup> and is the result of an amalgamation of the previous City of Tshwane, which was established in December 2000, and the three Metsweding Municipalities (Nokeng tsa Temane Local Municipality, Kungwini Local Municipality, Metsweding District Municipality), found directly east and south east of the previous City of Tshwane. The City of Tshwane (CoT), found within the Gauteng Province, is bordered by Limpopo to the north, Mpumalanga to the east, the

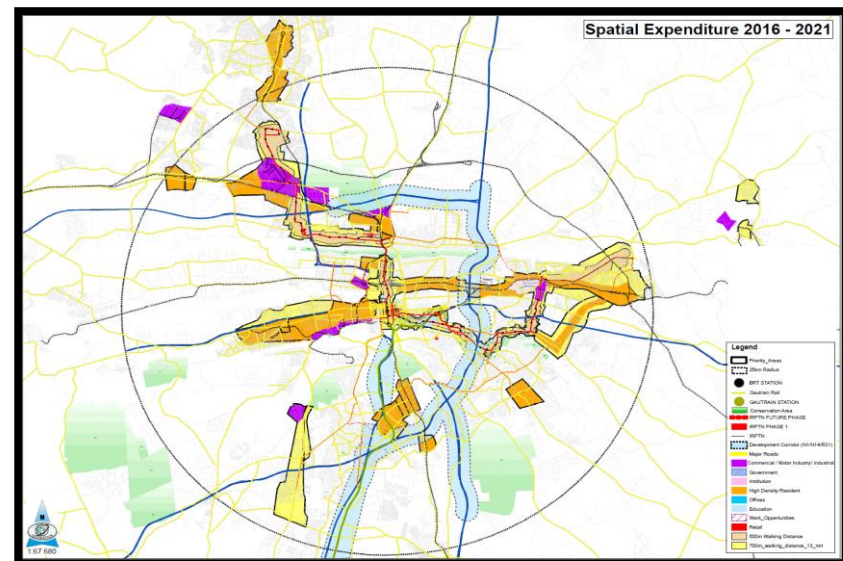
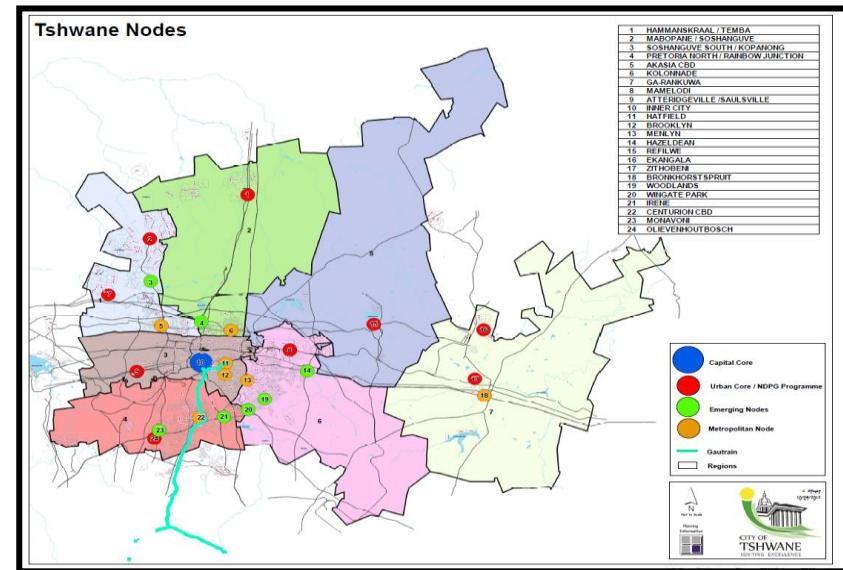


Ekurhuleni and City of Johannesburg Metropolitan Municipalities to the south and North West to the west. With Gauteng being at a total area of 16 548 km<sup>2</sup>, Tshwane, at 6260 km<sup>2</sup>, covers approximately 39% of the entire province.

Tshwane consists of 7 planning regions each with their own unique characteristics.

### 3.1 HIERARCHY OF NODES

Understanding that the current needs far outweigh the resources, it is important that the City focuses on the opportunities that exist for exponential growth and investment in the long term. These opportunities will be determined within the spatial vision by indicating where growth will occur in transport, housing, energy, water, recreation, education, health infrastructure and services. As explained by the smart growth concept. The spatial plan will promote efficient and effective resource allocation, ensuring that resources such as infrastructure are delivered in the right place and at the right time. This spatial plan also provides a sense of certainty for the future, and thus, investor confidence.



The key issue is that nodes within the city do not compete but complement and support each other so that the synergies between them maximise the potential of the City as a whole.

An important distinction is made between four nodal typologies i.e.

**Metropolitan Nodes / TOD** - these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Metropolitan nodes are those nodes within the City benefiting from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment. Such localities are also where the most extensive land use rights, including densities, are likely to be supported, also in line with the growth management strategy.

**Urban Cores**- former township area were as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme (NDPG) is a lead City programme and the main instrument 'township renewal'. Zithobeni, Ekangala and Refilwe are presented as Urban Cores.

**Emerging nodes**- over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the *potential* for greater development is clear. Identifying future urban areas also

provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Cullinan is presented as Emerging nodes.

### 3.2 SPECIALISED ACTIVITY AREAS

There are nodes in the metropolitan area that are characterised by largely mono-functional land uses taking up large, concentrated and defined space. The character of the areas ranges from industrial to high technology smart industries, medical facilities, educational, research and conservation facilities. It is important to acknowledge these specialised activity areas not just in terms of their scale, but because of their sphere of influence in terms of generating movement, opportunities and linkages with other areas. These linkages do not only refer to physical linkages, but also to "connectivity" in a broader sense, such as between institutions of learning and research.

The Blue IQ initiative of the Gauteng Provincial government contributes significantly towards the specialised activity areas in Tshwane. Blue IQ aims to deliver strategic economic infrastructure to catalyse sustainable economic growth and to indirectly contribute to job creation; to influence the composition of exports, and influence the diversification of Gauteng's GGP. The Blue IQ initiative focuses on four growth areas:

- Business
- High value-added Manufacturing (high value-add)
- Logistics
- Information and Communication Technology (ICT)
- Tourism and conservation

### 3.3 GROWTH MANAGEMENT

Growth management is a spatial concept that encompasses all aspects that ensure efficient, optimal and sustainable development of the physical environment. A key principle of this concept is smart growth. The smart growth principle guides development such that resources and services are provided in such a manner that they meet the demands of the affected population over a long-term period.

The role of nodes within the growth management concept is key. Nodes are those parts of the city where development should be focused. The widest variety of services and opportunities should be provided at nodal points, at degrees relative to their nodal status. The costs of urban sprawl and associated low densities are undeniable. Due to the limitation that development can be subjected to through the inability to provide bulk infrastructure, it is imperative that available infrastructure within the nodes are used optimally. This requires densification and intensification of land uses through compaction and infill developments. The maximisation of urban management within the nodes requires that these areas are specifically delineated within the greater developable areas for optimal growth.

The Compaction and Densification Strategy that was approved by the Council contains proposals for densification of the metropolitan area, which have local implications for each of the planning regions. The interpretation of the densification strategy for every region required special attention in the preparation of the RSDF 2017.

The strategy contains proposals for four key density zones:

- Concentration zones (high density / transit zones).
- Linear Zones i.e. corridors and spines (medium density).
- Suburban Densification (low to medium densities).

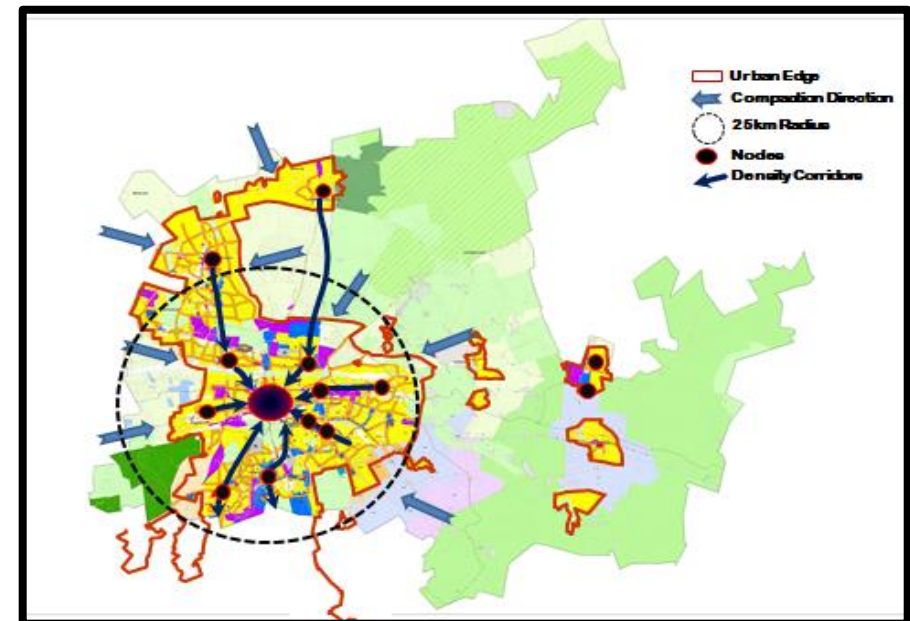
Densification and infill are sound urban development principles to pursue, but caution should be issued that most existing developed areas were not planned to accommodate higher densities and that in general the present road infrastructure cannot accommodate the additional traffic that densification implies. Densification should therefore be approached

holistically striving to also support a better public transportation system as a dual development process.

Densification is necessary for a number of reasons but most importantly it should support the provision of all urban services as best as possible.

Looking at the city from a metropolitan perspective ideally, areas with higher densities should be in the following localities:

- As close as possible to the CBD.
- Close to metropolitan core areas and services.
- In the proximity of areas with job opportunities.
- Close to public transportation facilities (major road and railway facilities).





These delineations extend to the containment of areas where development is permissible to areas where little or no development is permissible- such as environmentally sensitive or conservation areas.

### 3.4 URBAN EDGE

One tool for providing such delineations as discussed above is the urban edge. The urban edge will contribute to the achievement of the strategic objectives by conserving valuable environmental areas which would otherwise be compromised by development and promoting the use of existing infrastructure through redevelopment, infill development and densification within the edge thus achieving development that is sustainable. The urban edge also encourages the agglomeration of economies within the edge, encouraging scattered secondary or emerging nodes to develop into consolidated primary nodes as opposed to leapfrog development. The edge also ensures the protection of land- an exhaustible resource- by encouraging Brownfield developments instead of Greenfield developments.

### 3.5 TSHWANE RETAIL STRATEGY

A Tshwane Retail Strategy was formulated to guide decision-making on the development and management of retail nodes for the city.

Retail development should balance the needs of the retail sector with the needs of communities, urban functionality and sustainable development and should make a positive contribution to the overall urban environment. The local authority will take a more facilitative approach toward retail developments, provided that the actual development is in line with and support the urban objectives and contribute to a more functional, equitable, convenient and attractive metropolitan environment. Retail development should therefore be approached holistically, looking at the economic, social and environmental aspects.

The principles that underlay the approach taken in retail developments in Tshwane can be summarised as follows:

- To allow market forces and the free economy to determine the trend and tempo of retail development within the parameters set by the Tshwane Retail Policy.
- The desirability of a retail facility will be influenced by the broader area and the specific site as well as the degree to which the retail development contribute to the enhancement of the overall environment and the achievement of metropolitan development goals, as set out in the MSDF.
- Retail developments must be sensitive towards its location and surrounding environment, and be designed and sited in such a way that it contributes to the overall quality of the environment and not detract from it. A number of qualitative aspects will therefore have to be considered when evaluating retail applications, such as urban design, landscaping, public transport, interfaces etc.
- Retail applications and the evaluation thereof have to take consideration of the local context, i.e. the same guidelines and criteria do not apply uniformly to all parts of the metropolitan area.

Because of the fact that Tshwane comprises a large number of diverse areas, each with its own history, level of maturity, growth, population characteristics etc., it would be unwise to have a singular approach to retail development as a land use.

For this reason, a package of spatial strategies has been developed, that aim to address the relationship between specific contextual circumstances and future retail potential. These strategies should be interpreted more on local level, and are reflected in the Regional Spatial Development Frameworks.

### 3.6 RETAIL IN URBAN CORES

It is important to look at the retail development within urban cores relative other parts of the city in context. The retail developments in urban cores are not developed to the same level as in other parts of the city due to the inequitable development policies of the past. Nonetheless, these tables reflect that retail activity does serve as an economic activity within urban

cores, albeit not to the same extent as in the metropolitan cores which have a long history of favourable development policies.

Within the current context of the city's development policies where equal opportunity is promoted, it is also important to note that retail development, as with many other economic activities, is largely a function of the private sector. The private sector is market-driven, which means that it responds to demand and consumer characteristic. At the same time, the consumer will seek out very specific retail typologies depending on their specific characteristics as a consumer. This supply-demand relationship between developer and consumer will remain a permanent state of affairs. At present, the extent of retail development has largely catered for the consumer group mostly found within urban cores. Previously, due to a lack of private transport and expensive public transport, low-income earners were compelled to source their needs from small localised township retailers. Lower priced goods available at township shopping centres or establishments offered not only the variety of goods available, but also allowed goods and services at more affordable prices.

But the population profiles throughout the city are changing as it becomes more integrated spatially, socially and economically. These new population dynamics require that access is given to the upwardly mobile of the former township areas so that spending within the retail arena or urban cores can be directed inward to contribute towards further developing the urban cores. Those that move up the social and income ladder that previously preferred to shop outside townships in upmarket malls (known as 'outshopping') may to a large extent start redirecting their expenditure to township malls if upmarket retail developments are increasingly brought into the urban cores.

The importance of increased, high quality retail development within urban cores is thus two-fold:

- Equitable access to retail opportunities
- Economic stimulation by redirecting spending that might otherwise leave the urban core back towards the core to increase development

While retail development is driven by the private sector, the city has a role towards facilitating the ease with which developers invest in the urban cores. This especially relates to service infrastructure and supporting development

policies. Through the NDPG programme, public initiatives will support private funding within urban core areas.

Township/Catchment Area	Node/Precinct
Mamelodi/Nellmapius	1. Eerste Fabrieke Station Node
	2. Solomon Mahlangu Precinct (Denneboom Station)
	3. T-Section Node
Atteridgeville	4. Saulsville Station Node (includes: Saulsville Station, Atteridgeville Station, CBD and resorts)
Mabopane/Soshanguve	5. Mabopane Station
	6. Soshanguve South x14 (Klip-kruisfontein)
Hammanskraal/Temba	7. Hammanskraal/Temba Node
Olievenhoubosch/Monavoni	8. Olievenhoutbosch Node
Refilwe	9. To be determined
Zithobeni	10. To be determined
Ekgangala	11. To be determined
<b>Node being considered for future incorporation</b>	
Mabopane/Soshanguve	Garankuwa Node

#### 4. MOVEMENT AND CONNECTIVITY

Movement of people and goods throughout the metropolitan area is of city-wide importance. Movement in Tshwane can be described by the following diagram showing major movement patterns in the area.

- Many public transport dependant persons moving into the CBD from the north, the west and the east characterise every morning peak.
- Masses of private vehicles originating in the south and south-eastern parts move from the city in a southerly direction towards Johannesburg.

#### 4.1 URBAN FORM AND TRANSPORT INTEGRATION

In all successful cities there is a strong linkage and interaction between movement patterns and systems and urban development. It is necessary that land use planning is done in a manner which supports public transport but it is also necessary to ensure that mass public transport planning promotes and supports urban restructuring and sustainable urban development.

The city historically developed around a strong central core as mono-centred city. Private investment patterns changed over time with increasing car ownership and a ring of satellite nodes developed. These satellite nodes developed into viable decentralised locations, creating a multi-nodal urban form.

A further implication of the development of the satellite nodes is that the City of Tshwane is becoming increasingly inefficient and hence unsustainable spatially. More residents are becoming ever more dependent on private transport, which is becoming increasingly expensive. The majority of the City's residents have no option other than to rely on inadequate public transport which is also becoming more expensive and unsafe.

##### **Spatial problems identified at Metropolitan Scale**

Tshwane is a very large and dispersed metropolis featuring numerous problematic characteristics:

- Low density sprawl: Based on an anti-urban ethic of the free-standing house on a plot.
- Fragmentation: the grain of development is coarse, with isolated (introverted) pockets (cells) connected by roads (and freeways), frequently separated by buffers of under-utilised open space.
- Separation of functions: land uses, public facilities (urban elements), races, income groups are all separated by great distances.

##### **Settlement form**

The combined implications of the spatial patterns on the lives of the majority are disastrous:

- Much time-consuming and expensive commuting is necessitated, which aggravates poverty (and inequity) in society;
- City living has become over-dependant on the private car, which the vast majority cannot afford;
- Increasing numbers of private cars results in traffic congestion and increases pollution;
- The nature of roads results in environments which generate few opportunities to which small-scale economic operators can respond;
- The system is inefficient and wasteful of scarce resources, such as land, energy and finance.

##### **Future Spatial Development of Tshwane**

In order for Tshwane to accommodate the projected population growth and become sustainable within the Gauteng context, densification will have to take place within specific transport orientated corridors.

The future spatial development of Tshwane will focus on the intensification of urban and metropolitan core areas. The growth of Tshwane should be directed inwards towards the urban cores, mixed used activity spines and specialised activity zones.

##### **The nature of Public Transport Corridors and their role as Macro Urban Structuring Elements**

The development of a mass public transport system such as the IRPTN/Bus Rapid Transit System, Rail and Light Rail can be seen as a tool to achieve either of the following:

- The efficient movement of people around the metropolitan area; or
- The overall restructuring of urban functionality through the employment of an efficient and appropriate public transport system.

The distinction between the two objectives is important from an urban planning perspective. If the objective is merely to move people around in the city, particularly moving them from home to work and vice versa, then the development of a mass public transport system is purely a transportation

issue and is primarily concerned with the provision of roads, infrastructure and vehicles.

However, if such a system is to be utilised to improve not only the movement of people, but also to contribute to the improvement of the overall urban functionality an urban image, then the integration between aspects such as transport planning, land-use planning, urban design and urban management becomes vital.

### **Mobility / Transport Corridors**

The primary reason for the existence of this type of corridor is to move large numbers of people from one point to another in the city and often over relatively long distances.

This corridor will typically move people from the peripheral areas to work opportunities and back during the day. Because of the long distances separating many people from their work opportunities there is a great need to move people around the city during peak hours in the fastest, most cost effective manner with as little stops as possible between the origins and destinations.



### **Activity Corridors**

The integration between land use, economic activity and movement is the key function of this corridor. People do not only move between the two outer points of the corridor but also between various points along the corridor.

A mature activity corridor displays most of the positive aspects associated with activity corridors, such as high residential densities and high non-residential land use intensities.

Such a corridor will be most appropriate in the more central parts where a number of nodes with a certain degree of intensity and mix of uses already exist in relative close proximity to each other.

Within the Tshwane context accessibility has to be ensured on the following three levels:

- To and from other parts of the world and South Africa
- To and from the Gauteng City Region
- Movement within the Tshwane Metropolitan Area

### **4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE IS:**

Highways which form the corridors for large scale economic development and connect Tshwane with the rest of Gauteng and the country. These include the N1, R21, the proposed western bypass and Bakwena Platinum Highway.

All areas in Tshwane must be well inter-connected by means of a good and efficient public transport system. Two systems are proposed that can serve as the basis of a public transport system, namely rail and the IRPTN/Bus Rapid Transit System.

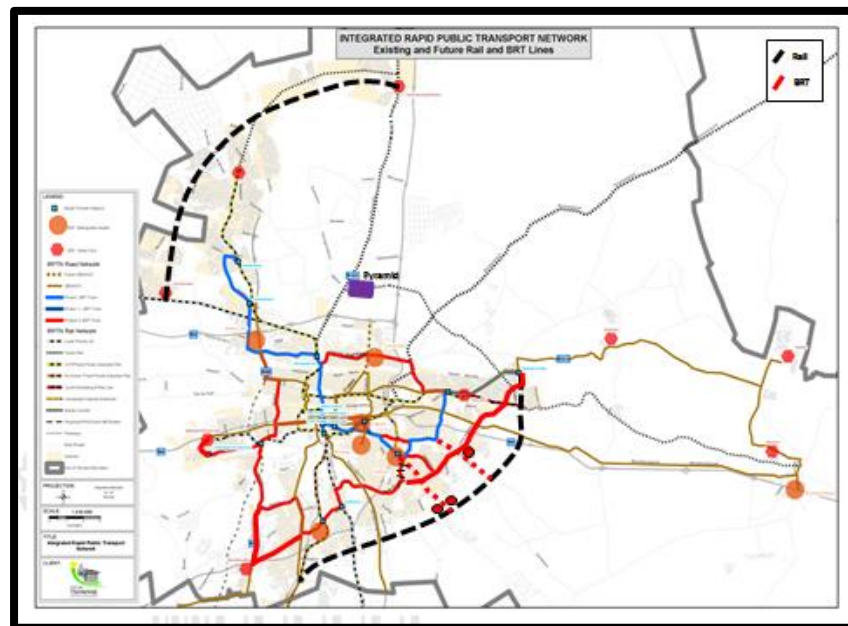
The existing rail system has great potential of becoming the basis of public transport throughout Tshwane and should therefore form the primary movement system, especially over the longer distances. This system however has current challenges that must be resolved.



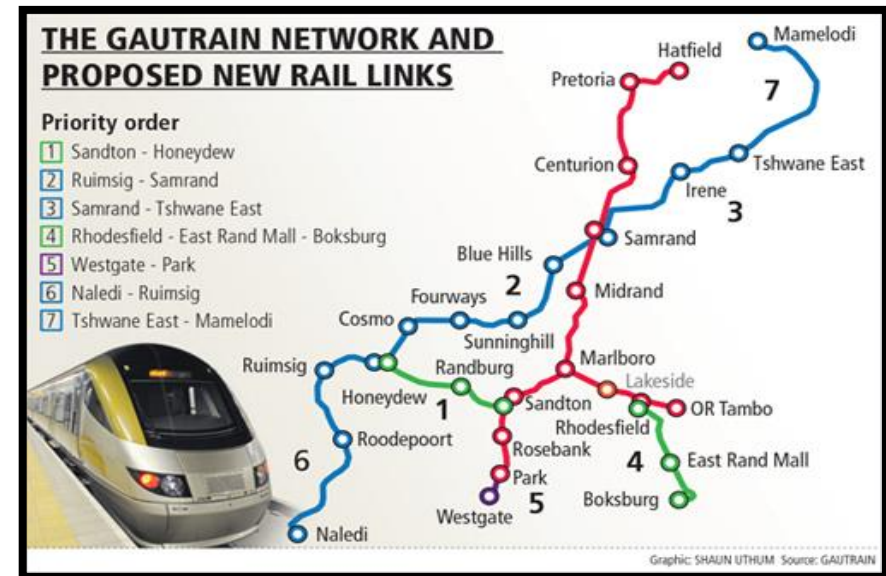
The establishment of an IRPTN/Rapid Bus Transit System is the ideal solution to solve public transport problems over short to medium distances, and will also contribute to connecting metropolitan activity nodes that do not lie on the rail network with each other.

The incomplete concentric road network needs to be developed further to serve the multi-nodal structure of Tshwane.

The Gautrain which links Tshwane to Johannesburg and the OR Tambo International Airport by means of a high speed rail link. The areas around the Gautrain Stations provide the potential for urban renewal in and around station precincts. The proposed extensions of the Gautrain to the east of the city is supported and will improve the general movement within the city.



The Gautrain project is primarily aimed at enhancing and supporting economic growth in the Gauteng Province and generating employment. Gautrain is contributing to the urban restructuring of Gauteng. Gautrain station nodes are important as the more people start to stay around stations, the better services are used, less time and money is spent travelling and a more convenient lifestyle is offered.



Spatial inefficiency- densification policies cannot be implemented without the support of public transport. More residences add more vehicles on roads which are over capacity. Public transport can be regarded as the tipping point of the success of the city's spatial policies.

Bicycle lanes and pedestrian lanes: Effort must be put in the establishment of separate bicycle lanes pedestrian walkways to allow for safe movement of the latter. If the latter is provided it will encourage this kind of transportation which will alleviate traffic problems.

With regards to the movement system, the central concern should be maximising access to regional opportunities. Access has both physical and non-physical dimensions. At a physical level this relates to convenience and at a non-physical level this relates primarily affordability.

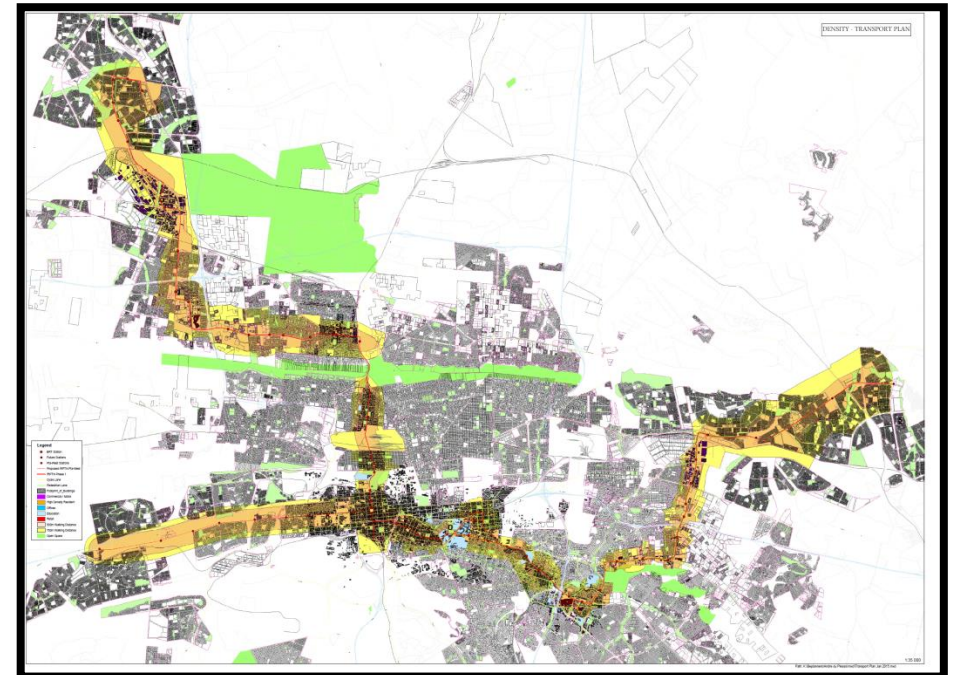
Apart from the physical route, there is also the matter of the means by which one will travel along those routes. Tshwane is experiencing high economic growth, a growing middle-class, and increased vehicle ownership that is causing a surge in traffic volume and congestion. Public transit has not been providing an attractive commuting alternative for those who can afford private travel options.

Prasa is currently undertaking studies into the existing and future demand and capacity of rail-based transport. All planning in this regard will also be informed by financial feasibility. There is an opportunity to create efficiency and close public transport gaps by integrating the BRT network with the Rail network. The BRT offers opportunities for both long and short distance travel. This means that where long-distance rail is not feasible, BRT can be implemented or *vice versa*, specifically in the case of long distance travel.



The integration should be carefully planned in order to ensure sustainability by avoiding competition between the two transport options. Preliminary indications are that there is not enough capacity to support both the Rail and BRT system along the same routes. Further, it is expected that the first phase of the BRT will link the Akasia and Menlyn area to the CBD. The BRT will provide both long and short distance travel options. This scenario negates the necessity for rail along the same route.

The Bus Rapid Transit and Rail should be the backbone of the future Tshwane transport system. The intention is that they become the preferred mode of travel for the majority of residents. In time, the improved public transport system should slowly start overtaking private vehicle usage specifically in nodal areas. This intervention will encourage transit-oriented developments.





Key characteristics of transit-oriented development include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 800 metres of a transit station
- reduced rates of private car parking.

This means that developments that cater for, or provide public transport solutions or align themselves along public transport routes will be prioritised. The decrease of private vehicle usage will also promote pedestrianisation of urban areas and an overall decreased carbon footprint. On the reverse side, in order for efficient transport systems to be sustained, a critical mass of users must be achieved. This means that localities that would induce the convergence of large numbers of people would be required. This again, brings us back to the nodal concept of the widest possible range of services within an area and highest residential densities being supported. The higher the rate of usage of the public transport system, the more affordable it will be. At the same time, the convergence of a large number of private vehicles in a locality causes traffic congestion and an avoidance of such an area by those who have alternatives. Removal of private vehicles can effectively improve the quality of an environment.

The City's road, rail and air movement systems will need to be developed to optimise all related opportunities. The rail system should become the backbone of public transport throughout Tshwane and it is therefore an important structuring element of the city. The positions of the urban cores purposefully coincide with major railway stations. The Gautrain stations in Tshwane include Hatfield, Centurion and the Inner City, again creating opportunities for intensification and development. Further expansion to the east will also allow for additional densification opportunities.

The proposed metropolitan vehicular movement system should be designed to support the rail system, i.e. to enable convenient transport of people to and from the railway stations. The rail network which is well developed with only a

few missing linkages is not utilized in terms of its potential as a mass transport facility. With the majority of the population dependant on public transport the strategic rethinking of this mode of transport is necessary.



### Livable Streets Concept

Liveable streets are defined as streets for everyone that are planned, designed and operated to enable a network of safe access for all users, including pedestrians, cyclists and transit riders.

The liveable street concept requires streets to be designed to enable safe, convenient and comfortable travel and access for all users, regardless of their mode of transportation. Complete streets accommodate walking and cycling. Streets are currently designed to only cater for cars; pedestrians are accommodated in the leftover space along narrow sidewalks. No provision is made for other modes of transport and the socialising function of streets is ignored. This is specifically problematic in the inner city where there are large numbers of pedestrians and where the limited space available requires streets to be part of the open-space system.

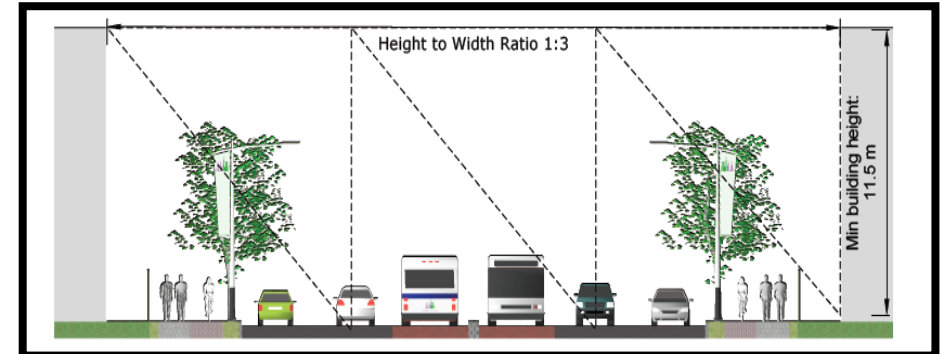
In terms of the complete streets concept vehicle and public transportation users are separated. It also makes provision for the socialising needs of residents and inner city users.

The design principles of complete streets are –

- traffic-calming measures to lower the speeds of vehicles;
- a road diet to reduce the number of lanes for vehicles and on-street parking;
- landscaping and streetscaping elements such as trees and benches to create a conducive pedestrian environment and protect pedestrians from vehicles;
- wide sidewalks to accommodate comfortable pedestrian movement;
- widening of sidewalks in some places to allow for socialising spaces;
- accommodation of cyclists, such as protected or dedicated bicycle lanes; and
- accommodation of public transport such as the bus rapid transit.



Source: City of Tshwane, City Planning and Development Department



The attached diagrams give a clear indication of how the trunk routes must be developed in cases where 32 m and more than 40 m road reserves are available.

## 5. ENVIRONMENTAL STRUCTURING CONCEPT

### 5.1 HERITAGE AND CULTURAL SITES

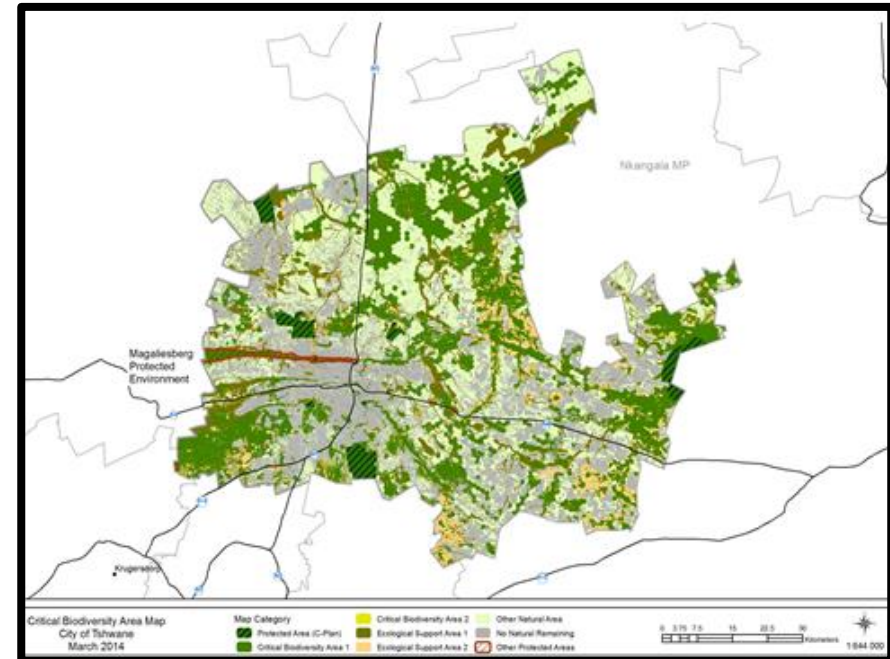
Tshwane's urban form and identity is closely linked to the influence of its natural and cultural elements. The developed areas are intimately intertwined with open spaces, creating a city with a unique character. The spatial development of the city should continue to value the role and prominence of the natural environment that sustains and informs the city. The natural structuring elements of Tshwane are those physical features that have to a great extent influenced the historical growth and settlement development pattern and that have an important ecological role to play in the ecological integrity of the metropolitan area.

### 5.2 OPEN SPACE AND CONSERVATION AREAS

A well-defined open space network is an important and integral part of the Spatial Development Concept of the MSDF.

The Tshwane Open Space Framework was approved in November 2005. The Framework will need to be reviewed and updated to include the newly incorporated areas of Tshwane.

The development of an open space network is an integral part of shaping the city. Ecological resources are irreplaceable and should thus be one of the major structuring elements guiding the development of the city instead of unplanned urban growth taking precedence and open space becoming merely land that is not desirable for urban development and thus 'left over' space. An important step in shaping urban form is thus the determination of an open space network, which contains natural processes and systems. The open space network is concerned with the spatial structure of green areas in the urban landscape and with all planning activities that are essential to create conditions for green areas to perform ecological services and to contribute to the quality of urban life. It is thus used to indicate the position of green areas in the urban landscape. As such it has spatial, social and technical dimensions. An open space network is also a planning concept, indicating the intention to develop planning and management tools for the structural role of green areas in the urban fabric and the urban organization.



An open space network contains not only the elements that constitute the open space in itself (vegetation, water, animals, natural materials etc.), but above all how the various open spaces are shaped in relation to the concepts of distribution and organization, to form a system of open spaces. An open space network incorporates a wide variety of open spaces into one system. Open spaces cease to be discreet elements within the city but together form a network in which each component contributes to the whole. It must be stressed that an open space network does not focus only on 'green' spaces, but also on more urban or 'brown' spaces as well as spaces that contribute to the place-making of the city.

From a city-planning perspective open spaces have various important functions:

**City structuring:** Historically Tshwane's numerous mountain ranges and ridges, rivers and water courses, and nature reserves and conservation areas have had a lasting impact on the city form and development pattern. Today this impact is still felt, as the Magaliesberg with only a few crossings still forms a barrier between the more prosperous southern suburbs of Tshwane and the less well developed northern suburbs. The scenically beautiful conservancy areas in the south-western part of the city form natural buffers for urban expansion in that direction. On the other hand these structuring elements do present an opportunity to connect and integrate the various parts of the city, e.g. the Apies River which crosses almost the entire municipal area from south to north.

**City image and identity:** The mountain ranges and ridges, and large conservancy and protected areas in particular, and rivers and water courses to a lesser degree, are responsible for Tshwane's unique African character and identity, which is being best described as 'nature within a city' and 'a city within nature'. There is the positive contrast between the built-up and natural environments everywhere, but nowhere more expressive than at the southern approach to the inner city. This uniqueness must be protected, enhanced and celebrated at all costs in the future.

**Urban expansion:** The large open spaces (ridges, conservancies, protected areas, etc.) contain urban expansion and prevent the city from developing into a monotonous build-up urban 'desert'. Because of the limitations on land availability this will eventually lead to a more compact city with higher densities, guarantying a more sustainable and efficient urban structure for the future.

**Land Uses:** Land-use planning must be done in relation to the open space network where possible, which creates the opportunity to place various urban land uses or developments inside or adjacent to the network. The full potential of the open space network can therefore be exploited for unique projects which otherwise would not be feasible.

Open Spaces thus include the following:

**Conservation Areas:** Areas designated for nature conservation, which may include tourism related facilities and recreational facilities directly related to the main use.

**Tourism and recreational related facilities:** Outdoor and tourism related activities, including hiking trails, hotels, 4x4 trails, wedding venues, conference facilities, curio markets, farm stalls, restaurants, game lodges and resorts with a rural character with due consideration to its impact on the surrounding area and environment. The CoT has tremendous opportunities in the eco-tourism arena. Most of the eco-tourism activities occur along the Roodeplaat Dam which is situated in the north of Cullinan (Zambezi) Road on the farms of Zeekoegat, Leeuwfontein and Roodeplaat. There is also the Dinokeng Blue IQ project. Eco-tourism activities that can be enjoyed include but not limited to the following: game farms, nurseries and bird watching to mention but a few.

**Residential (within the natural areas where you find irreplaceable, important and highly ecological sensitive sites):** Environmental Development or **service centres** aimed at the local market, and which are situated at a service delivery centre or central place to the community.

Estates where the primary focus is the conservation of the natural resource (open space). Conservation in this sense must not be seen as only protecting special or sensitive environments, but conserving open space as a valuable resource itself. The residential development is seen as a mechanism to protect and enhance the open space character and not as an end in itself. Special conditions shall apply in the consideration and approval of such developments, including the following: Dwelling units shall be grouped together in as few clusters as possible; a Strategic Environmental Assessment shall be done to determine the open space, the position of the clusters, the position of ancillary uses, roads; conservation conditions shall be strictly adhered to; conditions shall be set for the design, character and overall relationship with its environment.

Roodeplaat Dam and Bronkhorstspuit Dam are under immense pressure from high income essential enclaves. Increased development pressure could cause serious degradation of the natural areas as limited environmental management guidelines exist.



### 5.3 RURAL MANAGEMENT

#### Introduction

The erstwhile City of Tshwane (previous dispensation) was mostly characterize as an urbanized Metropolitan area with only a smaller sector known and characterized as definite Rural Areas. It is also important to note that parts of these apparently Rural Areas were further earmarked as Future Urban Development. These Future Urban Development Areas were designated in terms of each Regional Spatial Framework for future urban expansion and development.

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order e.i. to protect the Environmental sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land use development in the less sensitive areas.

#### Background

The following source documents were used as building block for the compilation of the revised Rural Component, Rural Management and Rural Development:

- Tshwane Biodiversity Plan. (2016))

All information with regard to the existing Urban Edge, Ridges, Ecological support areas, important areas, Irreplaceable areas, Protected areas, Game Reserves and Nature Reserves were used

- The existing and future provision of essential services

Information with regard to the provision and capacity of Water ( Reservoirs), Sanitation (Waste water plant), Roads, Storm water, Electricity, watersheds and flood lines were used to determine the development edge

- The Metsweding Environmental Management Plan
- The “Division” Plan and policy
- The Gauteng Spatial Development Framework 2011.
- The National Planning Commission: National Development Plan 2011: Chapter 6: An Integration and Inclusive Rural Economy.

It must be noted that all these documents were used to inform the revised Rural Component and did not dictate the final product.

#### Demarcation of the Rural Component

In terms of the Gauteng Spatial Development Framework, 2011 the function of determining the Urban Edge has moved to the Local Authorities and is a function is not part of the Provincial Planning functions.

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

These areas will remain as Future Urban Development as it shall retain a rural character until such time that basic service can be provided. These areas still need to be managed as rural areas with specific guidelines contained in the different RSDF's.

As soon as the areas earmarked as Future Urban Development been serviced, these newly serviced areas will be excluded from the Rural Component and will form part of the urban fabric of the city.

#### Vision

The Tshwane Rural Component will promote:

- An effective response to rural poverty.
- Ensure food security by maximizing the use and management of natural and other resources.

- Create vibrant, equitable and sustainable rural communities.
- To contribute towards the redistribution and sustainable use of all potential agricultural land.
- Rural economies will be supported by agriculture, and where possible by mining, tourism and agro processing.
- To create employment and business opportunities for the existing rural population.
- Aims to prevent natural disasters like erosion and pollution and other detrimental effects on natural resources.
- Formalize residential settlements according to the Rural Component Framework.
- Accessibility to community facilities, work opportunities and housing for all
- Maintenance of acceptable standard for roads and other modals
- Public transport should be provided as a service for the more densely rural areas.
- Identification of multipurpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations.
- Adequate and respectable services must be addressed to improve living conditions.
- The matter of ownership and tenants' rights must receive attention especially in areas where tribal land ownership exists.

### Guidelines

In the new Tshwane Metropolitan Rural component, the following conditions exist that need to be taken into consideration. Each Region has its own specific rural character and rural composition and detail proposals for the Rural component are therefore dealt with in each Regional context. Various Rural land use / Rural activity zones are located within the Rural areas and are indicated on the different Rural Component map for each Region. Together with the maps there are tables contained in each of the Regional Spatial Frameworks with restrictive or promotional conditions for every Rural land use/Rural activity zone located in that Region.

The Rural land uses/Rural activity zones for Tshwane Metropolitan area are:

- Development Edge
- Major Rural Roads
- Existing Infrastructure for essential services
- Future Urban areas
- Management zones
- Agricultural areas and
- Agricultural High Potential areas
- Sensitive protected areas.
- Tourism potential places / areas
- Conservancies
- Game and Nature Reserves
- Mines / Places of manufacturing
- Community Service Centres

### Conclusion

The main principle is to increase accessibility of rural people to basic services in support of survival strategies in the first instance and, in the second, to establish a base from which to start engaging more in productive activities. Given limited resources, the rural component should provide for basics for survival to all existing settlements but no provision for additional settlement growth. Localities with some economic potential should receive higher levels and a wider range of services/facilities.

The Smart growth principle will further more be strengthened through a well-managed Rural Component and will assist in:

- Discouragement of urban sprawl and contain growth with the city limits
- Preservation of the rural environment and landscape
- Protection of agricultural land, especially high potential agricultural land
- Preservation of the environments that promote tourism, recreation and nature conservation
- Protecting cultural and tourism assets.



## PART THREE: REGIONAL ANALYSIS

### 3.1 LOCALITY

### 3.1 LOCALITY

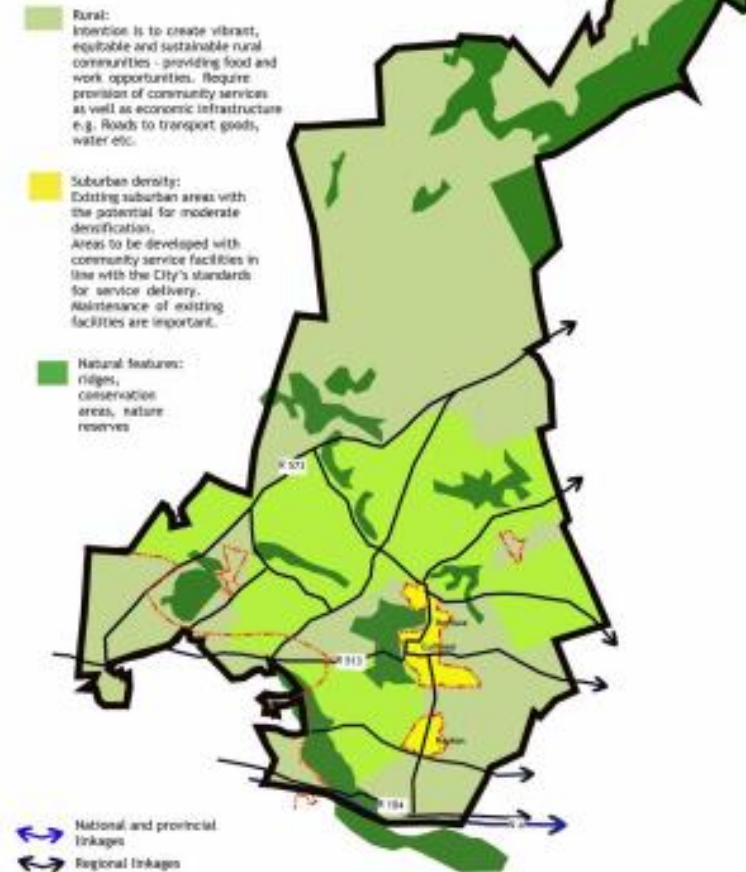
Region 5 consists of the bulk of the former Nokeng Tsa Taemane Local Municipality, with the inclusion of a small area from the former Kungwini area in the south, and the exception a north western portion, that currently forms part of the newly formed Region 2.

Region 5 is bordered by the Magaliesberg Mountain range and the N1 to the west and the N4 freeway to the south. Region borders on Mpumalanga to the east and Limpopo to the north. The newly formed region 2 is bound on region 5's western border, region 6 on the southern border and region 7 on the south eastern corner.

It is accessible via:

- The N1 freeway which links the region to from the south to Centurion, Midrand and Johannesburg further south and Polokwane to the North.
- The N4 Freeway entering through the east of the City to the region, giving access to Mpumalanga.
- The N4 forms a dominant central mobility spine within the region;
- The region is accessible from a regional point of view as it is served by both north-south and east-west first order roads linking it to the rest of Gauteng and the broader region.

### REGION 5: DEVELOPMENT OVERVIEW



3.2 AREA

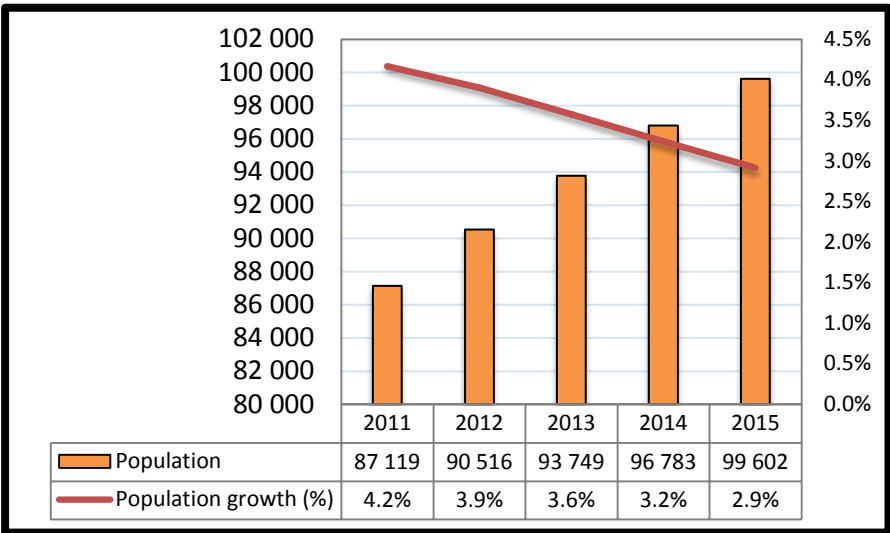
Region 5 is in extent 1 555 km<sup>2</sup> (one thousand five hundred and fifty five square kilometres) and comprises wards 87, 99 and 100.

This is the region with the largest geographical area.

3.3 DEMOGRAPHIC INFO

The 2017 estimated population figure for this area suggests 107836 people and a household size of approximately 3,5 persons. (Stats SA: Census 2011 and IHS Global Insight)

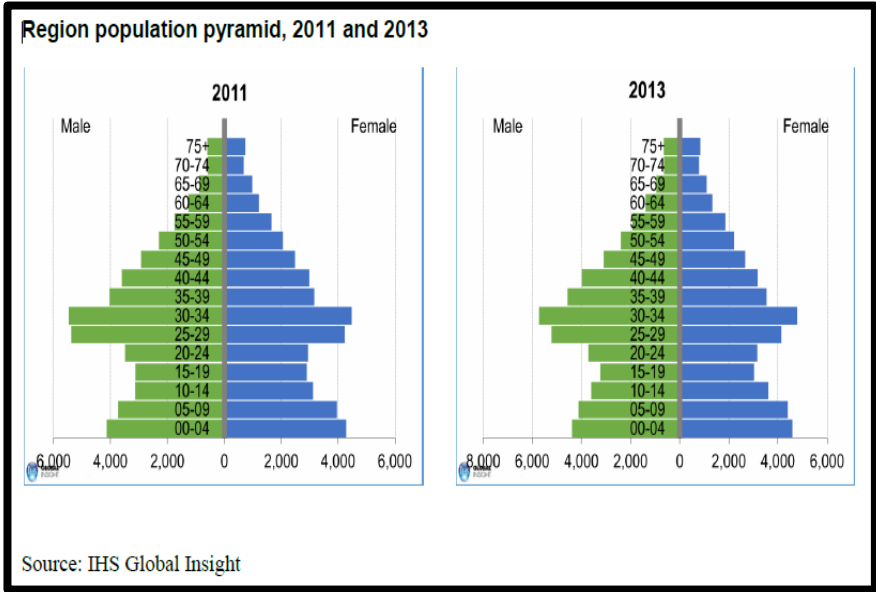
Total population and growth rate, 2011-2013



Source: IHS Global Insight

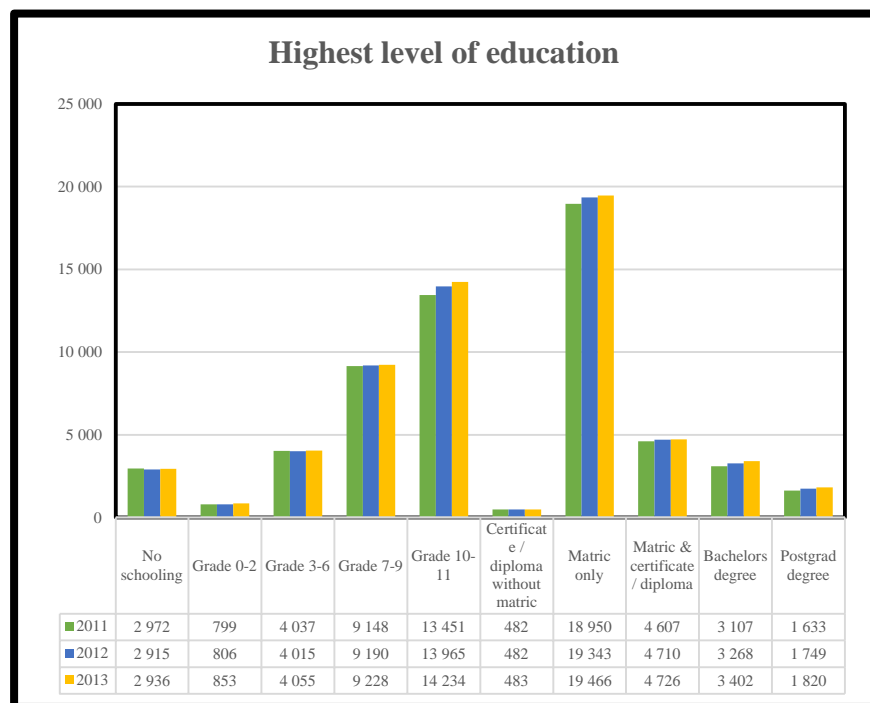
The figure 2 indicates the total population and population growth rate in Region 5 over the 2011 – 2015 period. As indicated in the figure, Region 5's population has increased from 87 119 in 2011 to 99 602 in 2015. It is

worth noting that the population growth in Region 5 has been increasing year-on-year at a declining rate. As indicated in figure 2, in 2011 the population growth rate was at 4.2 percent and this has since declined to 2.9 percent in 2015.



The graph above indicates the 2011 and 2013 population pyramid for Region 5, from the figure, it can be noted that there is a youth bulge in Region 5's population i.e. it can be observed that a significant portion of Region 5's population is younger than 35 (60.9 percent). This is likely due to the large presence of institutions of higher learning in the City, as a result, a large student population

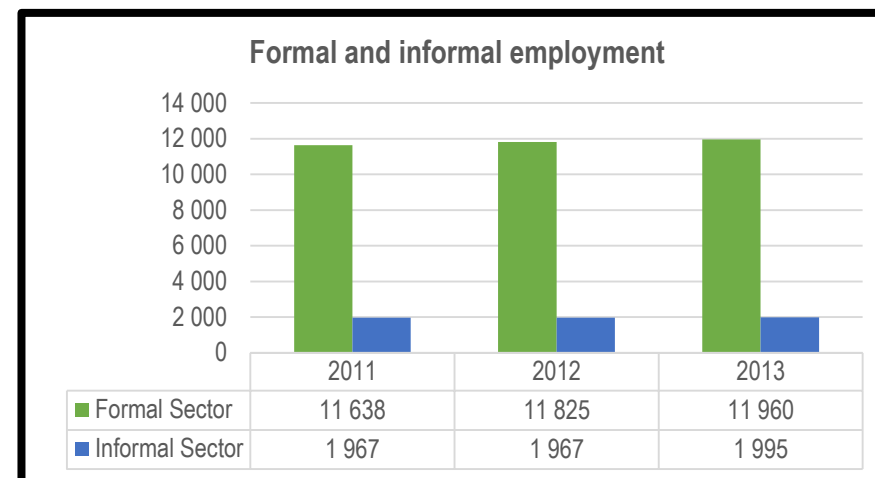
## Highest level of education attained for Region 5 population aged 20 years +, 2011 -2013



The above graph indicates the highest levels of schooling for the population aged 20 years and older in Region 5. As indicated in the figure, Region 5 has over the years under review i.e. 2011 – 2013, increasingly performed well with respect to education, more so in the accumulation of both matric and post matric qualifications. In 2011, approximately 4 726 individuals aged 20 years or older, had at least a matric qualification, this has since increased to 4 726 individuals in 2013. The number of individuals aged 20 years or older with no schooling have since declined from 2 972 in 2011 to 2 936 in 2013.

## Employment in Region 5 by sector (formal and informal), 2011 -2013

909



The above graph indicates the total employment in Region 5 disaggregated by sector (formal or informal). As indicated, total employment in Region 5 has been steadily increasing over the 2011-2013 period. In 2011, total number of individuals employed in the region were approximately 13 605, these have increased to 13 955 in 2013. As one would expect, the largest composition of this employment is formal employment which was 11 638 in 2011 and this has increased to 11 960 in 2013, on the other hand, informal sector employment has increased from 1 967 in 2011 to 1 995 in 2013.

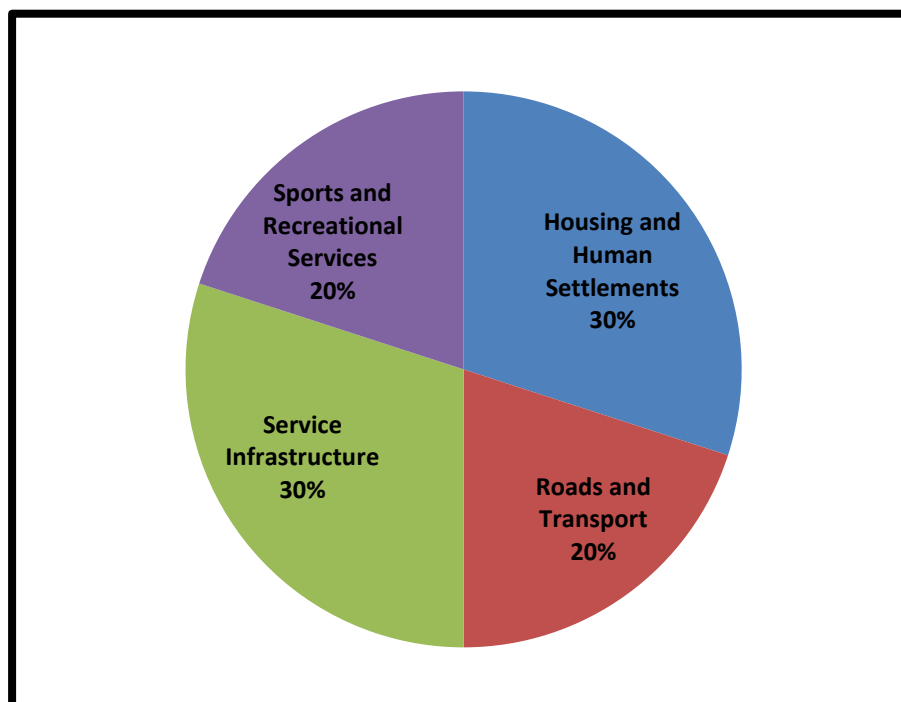
### 3.4 WARD PRIORITIES FOR 2015/16

During the public participation process in preparation for the 2015/16 IDP review; the three top priorities per ward in terms of community needs / service delivery were reconfirmed and compiled.

In summary, the following were the key dominant service delivery areas which were raised in Region 5 during the 2015 review process:

Dominant Service Delivery Areas		
Service Department	Delivery	Community Issue / Concern
Service Infrastructure		Infrastructure for rural areas (basic services) Completion of sewerage treatment works
Housing and Human Settlements		Formalisation of informal settlements
Sport and Recreation		Upgrading of sports and recreational facilities

The service delivery issues which were raised are therefore clustered into relevant City's departments as per the graph below:



### 3.5 REGIONAL CHARACTERISTICS

The main elements of the Region 5 development concept are to improve linkages; the creation of job opportunities; residential development and agricultural development. Region 5 is a rural area characterized with nature conservation (including the Dinokeng Blue IQ project of Gauteng), tourism and agricultural land uses. This area serves as a through corridor for the commuters along the Moloto Corridor to reach the employment areas in Gauteng. The ridges, outcrops and natural areas are important for the region. They form part of regional wide systems and a coherent management approach is needed for example the Development Guidelines for Ridges as developed by the Department of Agriculture and Rural Development.

The region's relative isolation from the pressures of urbanisation, that are evident in the sub-region, provides for the area's tourism potential. The area is close enough to be accessible, but far enough to provide for a sense of isolation and adventure. The area offers significant recreation, heritage and conservation assets. The southern boundary of the region experiences great development pressure especially in the Kameeldrift and Derdepoort area.

### 3.6 STRUCTURING ELEMENTS

When analysing the area, it is clear that it has a rather weak spatial structure characterised by heavy through traffic, vast open spaces, small economic centres and enormous development pressure from residential areas from Tshwane pushing further and further eastward.

Public transport in rural areas in particular and non-motorised transport (bicycles and walking) play a special role when short distances are travelled and are also the most popular forms of mobility used by communities. A fair number of mini-buses and buses carry a fair number of passengers to and from the area and therefore mini-buses and buses are probably the most appropriate modes to provide transport services in the area. The Moloto Road runs diagonally through the area, carrying large amounts of through traffic (on a daily and weekly basis) between the City of Tshwane and the Moloto area.

The municipal area has vast open spaces that are mainly natural in the northwest and cultivated in the eastern part, with small economic centres (Cullinan and Rayton). Informal settlements (Phumzile, De Wagensdrift, Plot 174 and 175, Plot 45 Pienaarspoort, Machaka, Refilwe x3, 5), though small and relatively contained, are scattered through the area, forming low-income residential enclaves. Apart from the pristine natural environment, is the Roodeplaat Dam. The dam is, however, under immense pressure for the development of high-income residential enclaves.

### 3. 7. ECONOMIC BASE

#### Agriculture

Mixed farming including crop, cattle and game farming are present in the area. Conservation linked with game farming and the Dinokeng initiative is an important economic opportunity for the area.

#### Tourism

The tourism sector is regarded as small but developing. There are resources and infrastructure available which contributes to the development potential in this sector. Community tourism is becoming increasingly popular, with tourists wanting to experience South Africa in the many rural villages and townships across the country.

Opportunities for the future development of tourism could possibly be found in bush camps and the future trend of cultural group tours with an educational orientation.

Development potential within the tourism industry include the increase in arts and craft SMMEs, new tourist routes, attraction development, education and training of tour operators, establishment of travel agents and tour operator training. The Dinokeng initiative, developments around Roodeplaat Dam and in and round the current urban nodes eg Cullinan create the economic base for this area.

### Mining

Mining especially in Cullinan provides work opportunities for communities in the area. Smaller scale mining eg sand mining are present in the area.

#### Mining within Region 5

Name of operation	Farm	Main activities
Cullinan Diamond Mine	Located on the farm Louwsbaken 480-jr	Diamond Mining
Vergenoeg Mine	Located on the farm Kromdraai 209-jr	Chemical and Fertilizer Mining
Delf sand	Donkerhoek 365-jr	Sand mining

Currently there are two main mining groups in Region 5 namely; Cullinan Diamond Mine that is operated by Petra Diamonds for diamond mining and secondly, Vergenoeg Mining which concentrates on fluorspar used in production of chemicals and fertilizer. The two mining groups are the ones that contribute a large part of the Mining Social and Labour Plan in Region 5. There are other small sand mining businesses that operate in the area which contribute in their own way to the economy of Region 5.

As announced in April 2015, Petra is planning the construction of a modern, fit-for-purpose processing plant at Cullinan, with a throughput capacity of 6 Mtpa, at a capital cost of ca. R1,650 million (US\$142.8 million). This will replace the current plant at Cullinan mine which was originally commissioned in 1947 and has undergone various refurbishments over the years since its initial construction. Petra Diamonds has planned for the expansion of the Cullinan diamond mine to increase the mine's production from 920,000 carats to 2.6 million carats by 2019. The mine has a life of more than 50 years.





### 3.8 PHYSICAL ENVIRONMENT

#### 3.8.1 NATURAL STRUCTURING ELEMENTS

The environmental features of Region 5 are major form giving elements that determine the surrounding urban structure.

Region 5 is characterised by the following:

- Significant ridge systems and small hills are prevalent through the whole region, notably the Magaliesberg range in the south. The Magaliesberg range forms the southern boundary of the region and is a major city structuring feature with high ecological value.
- The rural area is characterized with nature conservation (including the Dinokeng Blue IQ project of Gauteng), tourism and agricultural land uses.

- Significant watercourse systems throughout the area, most notably the Skinner Spruit and its tributaries, and Hartebeesspruit;
- The municipal area has vast open spaces that are mainly natural in the northwest and cultivated in the eastern part.
- Apart from the pristine natural environment, is the Roodeplaat Dam.

#### 3.8.2 STRATEGIC LAND USES

The region includes a few prominent land uses of strategic significance to the local as well as the broader urban environment of Tshwane. These include:

- Cullinan mine
- Dinokeng nature reserve
- Cullinan Town centre

#### 3.8.3 NODES

The towns of Cullinan, Refilwe and Rayton are located in the southern part of the proposed region. These can be considered as development areas. In the south-western area, bordering the current CoT, the area displays high development pressure for mixed use (business) development and higher density residential development.

Urban Development node	Function
Rayton	Retail / Residential/light industrial
Cullinan	Retail /Light industrial / Residential
Refilwe	Residential

#### 3.8.4 RESIDENTIAL

In terms of a city wide perspective the region has the following residential characteristics. The low density residential areas of Pebble Rock, Sable Hills, Leeuwfontein Estates around the



Roodeplaat dam. These areas can typically be described as well established, high quality residential areas.

Approximately 9 000 houses are required to address the housing backlogs within Region 5. (2011)

### 3.8.5 SERVICE INFRASTRUCTURE

In Region 5 only 51,3% of households have access to water and sanitation. (IDP 2010/2011)

Region 5 has large water services backlogs. This ranges from a need to upgrade the current infrastructure and creating new infrastructure in the different municipal wards. The need is mainly reflected in the informal settlements that are spread out within the various wards.

The following areas within the municipal area still require bulk water supply:

- Remainder of Plot 45 Pienaarspoort 339 JR to accommodate 200 households
- Plot 123 Leeuwfontein 299JR to accommodate 340 households
- Plot 174 & 175 Kameeldrift 298 JR to accommodate 1200 households
- Plot 137 Elandshoek 337 JR (Proposed Phumzile re-settlement) to accommodate 340 households
- Refilwe Informal settlements (Plot 80 Boekenhoutskloof 288 JR) to accommodate 3000 households
- Plot 79 Dewagensdrift (reticulation to households) as current supply is communal.

The Region still has shortages in terms of sanitation services. The only areas that are currently serviced with regard to sewer borne sanitation are

Townships of Rayton, Cullinan and Refilwe. The whole of Kameeldrift area (Kameeldrift, Derdepoort, Roodeplaat, and surrounding areas) do not have sewer borne sanitation. There is a need to construct a new sewer treatment plant around the Kameeldrift area.

In Refilwe specifically, there is a need to upgrade the current sewer works or where possible construct a new one as the existing sewer treatment works has reached its full capacity.

The rural areas use groundwater and on-site sanitation of which septic tanks with soakways and self-constructed pit toilets are the most common.

Stormwater drainage is to a large extent, only relevant to the urban areas of Cullinan, Refilwe and Rayton, i.e. where these systems exist. The stormwater systems, where they exist, within Refilwe, are surface drainage systems. The undeveloped street patterns within the informal settlements make the implementation and management of storm water systems difficult.

Electricity within the Pienaars River, Elands River and Roodeplaat areas is provided directly by ESKOM. In Cullinan bulk electricity is purchased by the Cullinan Mine that is also responsible for maintenance of the electrical network within this area. Bulk electricity in Rayton is purchased by the municipality from ESKOM, and the maintenance thereof the responsibility of the municipality.

The bulk of urban areas within Region fully electrified. Provision of additional electricity services to the Roodeplaat Area is problematic and must be assessed. Where no electricity services are available, primarily in the rural areas, residents rely on other energy sources such as coal.

The industrialisation and growth of the area necessitates access to modern energy source. The provision of electricity is critical for economic growth and development. The manufacturing activities rely heavily on reliable energy sources. The provision of electricity to the remote areas is important to contribute to the social upliftment of the people. Electricity provision is important in alleviating catastrophic incidents i.e. fire, harmful gases which are caused by use of natural means of energy.

Only 44,7% (6 634 households) receive RDP refuse removal, a backlog of 55,2%.

There is a waste transfer station in Region 5 adjacent to Zonderwater Prison and along R515.

### 3.9 KEY ISSUES AND S.W.O.T ANALYSIS

In order to determine the key issues and development opportunities for the area a S.W.O.T. analysis for the region was done.

#### 3.9.1 OPPORTUNITIES

The proposed region has a very unique economic base and set of economic problems. With this comes a set of unique economic development opportunities. For the most part, this very rural area has potential for greater tourism activity resulting from the investments in the Dinokeng Initiative. Dinokeng can serve as an important marketing tool and anchor for further development in the area.

The greatest strength of the area, in respect of agriculture, is its central location and access to markets. The east-west transport linkages and proximity to the urban centres within Gauteng are important opportunities in this regard. With specific reference to the Johannesburg International Airport since more than 50% of specialty produce are shipped via air transport.

The area is a global centre for diamond mining. Cullinan developed as a result of the diamond mining activities, which produced the world's largest diamond and the world's largest cut diamond. The history of this area has also contributed to the tourism potential of the area.

Proximity to Moloto should be perceived as strength, because of the large population and potential market base. From IDP 2006/2007

Key opportunities relate to tourism and related services, agriculture, transport, and human services

#### 3.9.2 THREATS

Service delivery demands and challenges differ from the predominantly urban areas. The service delivery model should therefore include satellite service centres to be accessible to the communities situated across this region. Other challenges include low skilled labour force and unemployment.

Access to bulk infrastructure is necessary to support industrial and tourism development. Access to municipal services is relatively high in the urban areas but should be extended to the rural areas to unlock potential where sensible development in line with the requirements of residents can be undertaken.

Illegal buildings, uses and townships also create a challenge in especially the rural areas.

#### 3.9.3 ROLE AND FUNCTION

The far northern areas play an important role in the provision of regional open space in the metropolitan area with ridges and wetlands defining the area in the north and south.

It holds as a resource large strategically under developed land parcels, which could in future accommodate effective focused development.

- Cullinan and Rayton are identified as less stable economic growth areas that need to be stabilised (It is recommended in the GSDF: 2000 that these areas should be stabilised through own resources).
- Cullinan and Rayton are identified as urban towns that need to be contained with a clearly defined urban edge.
- Rural settlements (small holdings with a rural character) are identified in areas that are in the rural environment outside of the urban edge. In terms of the GSDF: 2000, these areas are not supposed to become urban or their urbanisation process must be managed and as such a set density is required for these areas by the local municipalities.
- Intensive rural areas have been identified in the northern area; these areas are identified as such because they will be used extensively for agriculturally related uses.

- Extensive rural areas were identified as to be used for extensive farming and to retain their rural character (e.g Onverwacht settlement)
- In terms of mobility, the following roads are critical for the Metsweding District Municipality, N1, N4, R575, R25, R42, R104, R513, R573 and R515. These mobility roads and rail also play an important role in improving mobility of goods and services in the district.
- Development pressure in the southern part of the region, with specific reference to urban development this place certain obligations on the municipality in terms of service provision.
- Pressure for densification within the rural areas, especially in the Roodeplaat area.
- The Dinokeng initiative that will be to the benefit of the Municipality.
- The ecological sensitivity of rivers and dams within the area and importance to preserve these rivers and dams.
- The existing development pattern of the area, where towns were not developed to create single functional areas but consist of a number of different nodes.
- The potential for conservation in the northern areas and the large number of conservancies already established within this area.
- Existing and expected pressure on internal roads that will contribute to the poor condition of these roads.
- The Maputo Corridor that may improve accessibility, not necessarily within Gauteng, but in respect of the North-West Province, Mpumalanga and Mozambique, that may be beneficial in terms of potential for development within the area.

Key drivers that exist in the area and that impact on the environmental development of the area include:

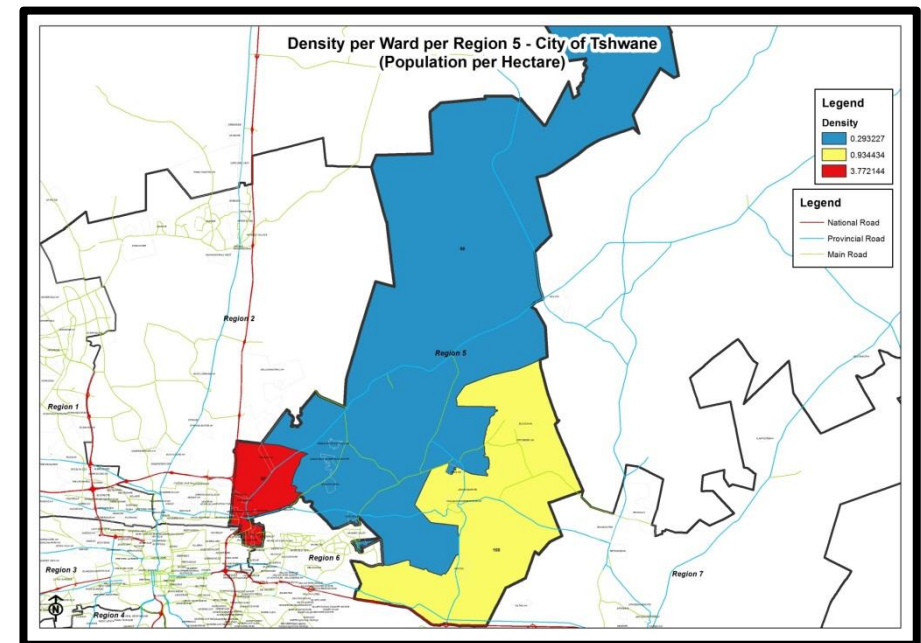
- Mining activities
- Urban sprawl and development pressures
- Informal settlements
- Illegal industrial activities

There are a number of ridges and outcrops that should be protected.

The current Gauteng Spatial Development Framework (GSDF) 2010, is one of the important studies that provides the following context regarding the area:

- The Roodeplaat dam area and its immediate surroundings were identified as a possible open space area at metropolitan level;
- Cullinan and Rayton are identified as nodes in the area;
- In terms of containment, it is proposed that the following areas be contained, Cullinan and Rayton;
- In relation to economic matters, it is proposed in the GSDF: 2010 that declining economic industries must be assisted;
- Manage and contain residential development.

### 3.10 RESIDENTIAL DENSITIES IN REGION 5



Ward	Population	Area in Ha	Density per Ha	Dwelling Units	Average Household Size
87	24861	6591	3.77	7522	3.31
99	33414	113953	0.29	10761	3.11
100	32623	34912	0.93	8995	3.63
<b>Total</b>	<b>90898</b>	<b>155455</b>	<b>0.58</b>	<b>27278</b>	<b>3.33</b>

### 3.11 TRENDS IN REGION 5

In terms of buildings constructed between 2012 and 2015 the most development took place on the fringes of the city along Sefako Makgatho Drive (Zambesi) and Oak and Mainstreet in the Cullinan Area.

#### TRENDS IN NODES

The Cullinan Node received a boost in terms of the Cullinan Library which will focus on literacy and sport development. Further the Cullinan mine is continually expanding and upgrading. The planned expansion of the Cullinan diamond mine is to increase the mine's production from 920,000 carats to 2.6 million carats by 2019.

#### TRENDS IN THE RURAL AREAS

The Dinokeng Game Reserve continued to expand and by 2015 the reserve has increased by 40 000 hectares as more landowners in the area sign up for the project.

#### TRENDS IN PREVIOUSLY DISADVANTAGED AREAS

The Refilwe nodal transformation forms part of an urban network of upgrades supported by the Neighborhood Development Partnerships

Grant, National Treasury. The first phase of the nodal upgrade was completed.

In Region 5 large numbers of RDP housing is planned to be developed within the Refilwe area. In Refilwe Extension 7, about 900 RDP units are to be developed in the short term.

In Refilwe Manor and Refilwe Extension 10 a further 2000 units will be built. A mixture of housing typologies are proposed in these two townships. The principles of "Breaking New Ground" is to be followed when these townships are developed.

#### TRENDS IN SUBURBAN AREAS

The Cullinan and Rayton areas did not see significant development and the areas are not expected to change in the near future.

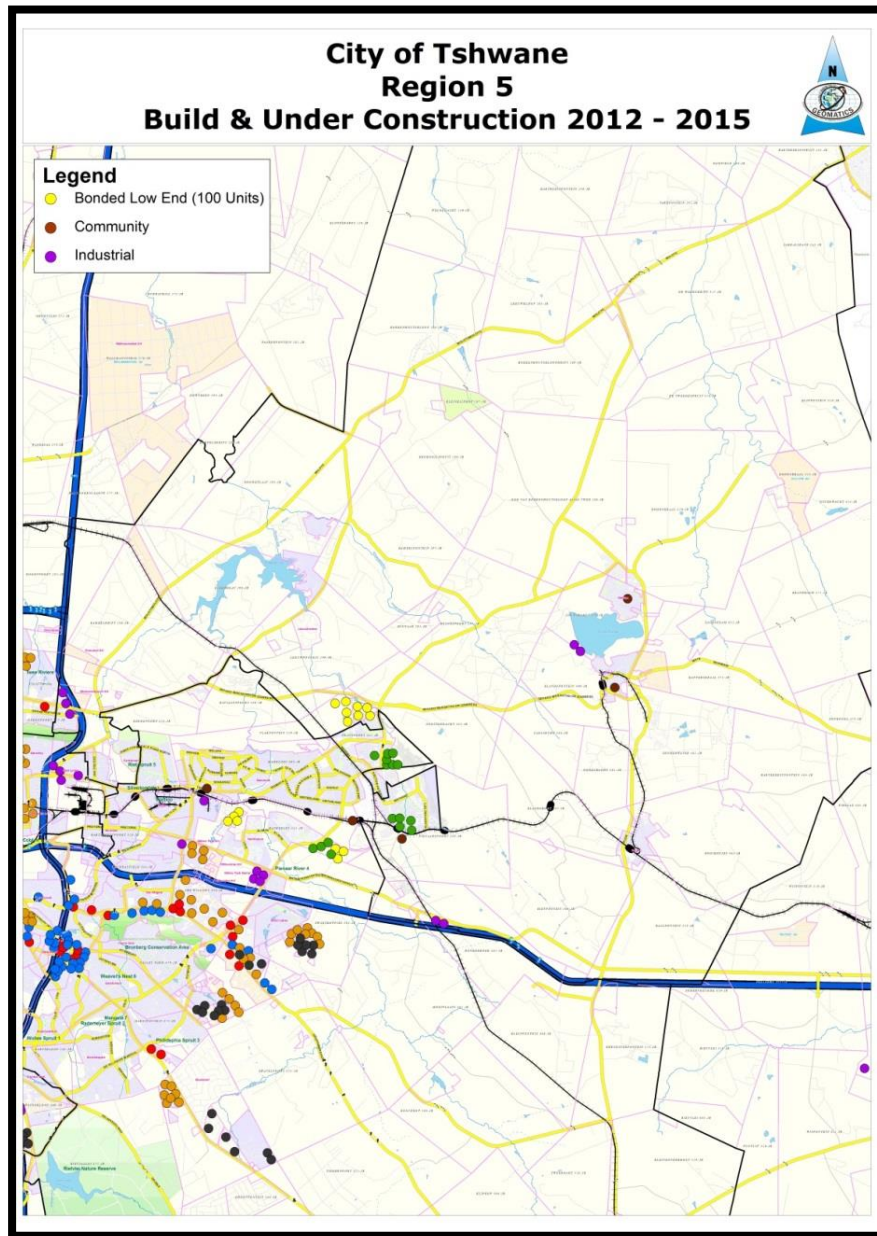
#### TRENDS IN RELATION TO SPATIAL PLANNING

Most of the development in Region 5 was in the nodal area and in line with the RSDF and MSDF.

Large scale residential development has started at the intersection of Sefako Makgatho Drive (Zambesi) and Solomon Mahlangu Drive. This development will focus on the bottom end of the bonded market.

The developments are not ideally located in terms of the overall urban structure of the City. The original rights were approved by the then Metsweding Local Authority and was done before the approval of the MSDF and RSDF.





#### 4.1 INTRODUCTION

The main development objectives for the region to fulfil its metropolitan role and function have been identified and are represented in a development concept. The main elements of the development concept are to improve linkages; the creation of job opportunities; residential development and agricultural development. The following summarises the proposals:

- Access to the second order road system from the N1 and N4.
- Improved east-west linkage to CBD.
- Further develop the Dinokeng initiative.
- Improve linkage to the N1 and N4.
- Improved public transport via possible new rail system or road to the Moloto area.
- Development of new nodes and the expansion of existing nodes.
- Densification around the nodes.
- Conservation and development of agricultural potential in the area in far east.

The following section will explain in detail the different components of the Spatial Development Framework as indicated on the map.

#### 4.2 REGIONAL NODES / LOCAL NODES



##### 4.2.1 CULLINAN NODE:

Cullinan Town is located 45km from the Pretoria City Centre. Cullinan is an existing emerging node within the City of Tshwane which has been identified by Blue IQ as one of the tourism hubs within the Dinokeng Nature Reserve. The area is characterized by retail, low density residential, presence of tourism sites such as Big hole Cullinan mine tours

and government offices. The Cullinan Fourways Crossing should become the future economic hub of the Cullinan area by incorporating mixed land uses for development of the node.

Cullinan is very central within region 5 as it serves to connect the movement of transport and people from the Ekangala area, Rayton, Refilwe and surrounding farms into the Pretoria City centre.

There is a need to expand engineering infrastructure provision into the Cullinan Fourways and Lewzene Agricultural holdings in order to attract both public and private sector investment in the area. Currently the eastern part of road K169 requires provision and extension of engineering services which are only located in the main town of Cullinan.

Densification of this emerging node is supported to ensure proper functioning of the node and to develop into a mixed use node. The future Cullinan node should include variety of land uses such as light industrial, high density residential development and commercial uses. The integration of Cullinan node with Refilwe Township which is located 3km from the Cullinan Fourways Crossing is critical. Future residential development should be located in the Lewzene Agricultural Holdings based on sound development principles and supported by engineering services.

A number of precincts can be identified within the Cullinan node:

- Core area: The intersection of road K169 and Hospital Street forms part of the core area of the Cullinan node. These include Remainder of portions 64, 67, 66, 27, 28 and portions 85 and 29 of the farm Kafferskraal 475-JR
- Future Residential areas: the areas outside the urban core of the Cullinan Fourways crossing are demarcated for low, medium and high density residential development as per Cullinan Fourways Precinct plan



- Densification will be evaluated carefully within the existing Cullinan Town based on the tourism character of the area and within strong architectural guidelines

#### 4.2.2 RAYTON NODE:

Rayton is one of the emerging nodes within the City of Tshwane. Rayton is located 55km from the City centre and has a history of an agricultural town. The area is characterised by retail, light industries, motor workshops and low density residential developments. Rayton provides easy access to the N4 National road within 4km and provides linkages with the Bapsfontein-R21 movement system.

The provision of Engineering services within the Rayton area need improvement especially to increase electricity, sewer and water networks for future development in the area.

Densification within the town of Rayton is supported to ensure that public transport is enhanced in the area. Most of the erven in Rayton are larger (1000 m<sup>2</sup>) and infill development is possible. There is a need to promote Rayton as an agro-industrial processing area because of its location to the major routes as well as presence of land for such purposes.

The core area of Rayton is formed by the areas around intersection of South street and Nolte street, and Nolte street and R515 including Rayton Extension 24. This area should be developed as a mixed use node comprising medium to high density residential development, commercial uses, business and other uses associated with a mixed use node. The RSDF indicates a number of nodes which are important on a regional and local level. The following urban planning requirements must be noted when developers consider proceeding with a retail development:

To ensure that prospective applicants who intend developing retail facilities sufficiently address all aspects in their applications for retail rights and are thoroughly briefed on all the requirements of the Municipality with

regard to such developments, a pre-application consultation should be followed, where the following aspects will be addressed:

- Locational Requirements
- Urban Design
- Parking requirements and layout
- Taxi ranks and public transport facilities
- Informal Trade
- Site development plans
- Studies. (Market Demand)
- Pedestrian movement (TOD)

A feasibility study will also be required for retail developments greater than 4000 square metres.

#### 4.2.3 REFILWE NODE

Refilwe Township is mainly a residential node although with limited retail activities taking place in the area. The area is characterised by many informal trading (Spaza shops and illegal shops) and many residents make their monthly grocery purchases from Rayton or Cullinan.

MJ Rumo Drive is identified as an Activity Street. A mixed-use area is identified along MJ Rumo Drive, from R515 to the intersection between Pekwa street and MJ Rumo Drive to promote the principles of "Township Economy" in line with National Government's plans for township revitalisation.

The areas in Refilwe have very small erven sizes (230m<sup>2</sup>-300m<sup>2</sup>) and makes it difficult for any meaningful densification to take place. However there are future opportunities for retail development at the Refilwe entrance or even to enhance the existing retail area along Rumo Drive. City of Tshwane owns a number of properties in the existing retail area adjacent to Community which could be consolidated and leased to a local developer to enhance the retail potential of the area.

One of the challenges in Refilwe is Land ownership and security of tenure. City of Tshwane owns more than 700 properties where people currently

reside and more than 65 are owned by De Beers Consolidated Mine. There is (an on-going process of transferring properties to the current occupier in order to increase economic value of the properties and also to allow small business initiatives to take place, which is being undertaken by the City of Tshwane Human Settlements Department in order to realize the abovementioned. The Refilwe Precinct Plan indicates the desired and future development of the area.

## RETAIL STRATEGY

The Tshwane Retail Strategy is applicable to these nodal developments. The following tables provide a better overview of the retail aspects of the nodal developments.

For these nodes to function properly they should form part of a hierarchy of nodes, directly related to the characteristics of the population it serves.

The hierarchy of retail centers as proposed in terms of the “Retail Strategy” should be applied to the region, subject to need and desirability within the region.

### Summary of strategy

**Renewal Strategy:** In many instances retail facilities have become outdate, the increase in passing traffic has created a problem and in many instances parking facilities are inadequate. The revitalisation, upgrade and improvement of these areas should be encouraged.

Once a particular location or structure is no longer viable for retail purposes it is recommended that the structure be demolished and converted for other uses. This strategy will be driven by the decrease in return on investment in a particular area, large vacancies and the reluctance of retailers to move into a particular area. Urban decay, poor locations and unsafe areas will be the main problems to deal with. This should also form part of a broader revitalisation strategy for areas experiencing urban decay.

A renewal or upgrade strategy should also be followed by shopping centre owners. In most cases shopping centres are in need of a minor upgrade/major maintenance overhaul at intervals of 5 to 7 years.

**Maintenance strategy:** In certain cases shopping centres have become outdate and routine maintenance no longer effective and the upgrading or the redevelopment of the centre imperative. A maintenance strategy will mainly be applicable in already built up areas.

**Expansion strategy:** The change and growth in consumer demand in a particular area as well as new retail offerings will ‘force’ landlords to expand their existing retail facilities or to include new retail types. This is especially applicable in the case of regional and super regional centres, but can also be relevant for existing business clusters.

Most regional centres continuously expand to make provision for internal growth and to accommodate new retail concepts or trends. Cognisance should be taken of this particular need. This growth will mainly be driven by the already proven success of a particular centre, its location and the needs of the market.

**Infill strategy:** In this instance reference is made to infill in already built up residential areas where retail has been lacking or undersupplied. This type of development will then capitalise on an existing market and will prevent major outflows from a particular area to other shopping destinations.

The most important infill gaps currently exist in the traditionally black urban areas, although it is not necessarily restricted to these areas. There is currently major interest in the development of shopping centres in these areas, and development in these areas should be encouraged. The developments range from small neighbourhood to regional (large community) centres.

It is important to note that once the area is sufficiently serviced, the Infill Strategy must be replaced by the Maintenance and Expansion Strategies, and where new growth occurs, the Follow-the-roofs strategy.

**'Follow-the roofs'/ new growth areas strategy:** This strategy focuses on new growth areas and the provision of retail facilities once a certain threshold level of houses and disposable income is reached.

In the case of a 'follow the roofs' strategy, timing is of critical importance. Should a centre be built too soon the retail performance will be low and casualties, especially amongst the smaller tenants, will be high. Further growth in an area should also be such that the trade area of the proposed centre will fill up sooner rather than later.

**Nodal strategy:** Nodal or urban core strategy is applicable where larger retail facilities will create agglomeration advantages for complementary retail facilities. Urban and Metropolitan cores are those nodes or urban centres that fulfil a city wide function. These nodes are not stagnant and will expand over time. It is important that these agglomeration nodal developments take place in close proximity of small to super regional centres. Different types of retail facilities are on offer and not all can be accommodated in a traditional shopping centre. The best locational advantages of these complementary retail facilities are in close proximity to the existing regional centres. Other types of retail nodes where agglomeration benefits could be created could also be established.

The agglomeration effect is created by the catalytic nature of regional centres. The node will grow to include a variety of facilities and to reach a stage where the required tenant mix reaches the necessary critical mass.

**Modal interchange strategy:** This type of facility depends mainly on the nature of the commuters, the area as well as the different transport modes used.

Land uses in these areas should be focussed on transport orientated developments, with retail focussing on convenience and day-to-day goods.

Higher density areas will therefore have a higher frequency of nodes in a smaller geographical area. The ideal locality of such nodes will have to be determined through retail studies taking into account all factors that could have a significant impact on the success of such a node.

To ensure that prospective applicants who intend developing retail facilities sufficiently address all aspects in their applications and are thoroughly briefed on all the requirements of the Municipality with regard to such developments, a pre-application consultation should be followed, where the following aspects will be addressed:

- Locational Requirements
- Urban Design
- Pedestrian movements (walkability)
- Parking requirements and layout
- Taxi ranks and public transport facilities
- Informal Trade
- Site development plans
- Retail and traffic impact studies.
- Impact on surrounding land uses

A feasibility study will be required for retail developments of greater than 4000 square metres.

## 4.4 MAJOR EMPLOYMENT OPPORTUNITY AREAS

### 4.4.1 INDUSTRIAL / MIXED USE AREAS

#### Derdepoort Area

The area located at the intersection of the N1 Highway with Sefako Makgatho Drive has responded to the good locational advantages of the area and numerous light industrial uses have developed in this area. It is proposed that light industrial uses be permitted in this area to the North of Sefako Makgatho Drive south of Sakabuka Street and east of the N1 up to the Old Molotto Road and R 573 (Moloto Road). The industrial uses should be permitted in this area subject to site development plans illustrating measures to mitigate possible negative impact on surrounding land uses. The area to the north of Sakabuka Street should be earmarked for Future Urban Development. Any land development applications, including township establishments will be subject to availability of engineering services. This includes the proposed Insitu-development next to the old police station and Kameeldrift Library north of Sakabuka Street.

The strategic vacant area to the north of the Magaliesberg Mountain Range includes fourteen township extensions, known as “Gem Valley”, “Glen way” and “Ramokgopa” development. This area proposes a mixed land use pattern with a focus on residential development.

### **Mining Areas**

Currently there are two main mining groups in Region 5 namely; Cullinan Diamond Mine that is operated by Petra Diamonds for diamond mining and secondly, Vergenoeg Mining which concentrates on mining of fluorspar used in the production of chemicals and fertilizers. The two mining groups are the ones that contribute a large part of the Mining Social and Labour Plan in Region 5. There are other small sand mining businesses that operate in the area which contribute in their own way to the economy of region 5.

#### **4.5 FUNCTIONAL ROAD CLASSIFICATION AND ACTIVITY MATRIX**

The movement system in an urban environment is literally the arteries of the city – without these linkages there can be no economy, no inter-relatedness, and no “life”.

Movement systems can be used to create access, structure settlements, and promote integration, diversity and mixed land use. Movement (flows of people, finance, goods) defines the energy networks of settlements. Accordingly, more continuous lines of movement represent planes of greater accessibility and, therefore, become the more desirable connection for intensive use. Significantly, the energy potential contained in lines of movement is released through stopping, not through movement.

Different movement modes have varied patterns of stopping. Accordingly, they establish different rhythms of accessibility and the co-ordination of different modes enables certain points to be strongly reinforced. By creating a complex and diverse pattern of accessibility, all activities, both large and small, can naturally find a place within the structural system,

depending on their need for accessibility and their ability to pay for it. Movement systems, therefore, provide a powerful planning mechanism to bring about mixed, but broadly predictable, patterns of activity, provided activities are allowed to respond to them. Existing and future mass transport routes should also be integrated into this urban system.

The movement system is an enabling feature of a city as it enables the free movement of goods and services through a region. Development trends are directly influenced by accessibility and therefore strategic planning with regard to movement is of utmost importance in the context of a growing metropolitan centre.

Land use changes for the consolidation of erven adjacent to existing nodes in residential areas will be considered on merit. Erven adjacent to roads that link such nodes with mobility or activity function within a residential area may be considered on merit. The merit will be evaluated in terms of the guidelines as set out in this chapter.

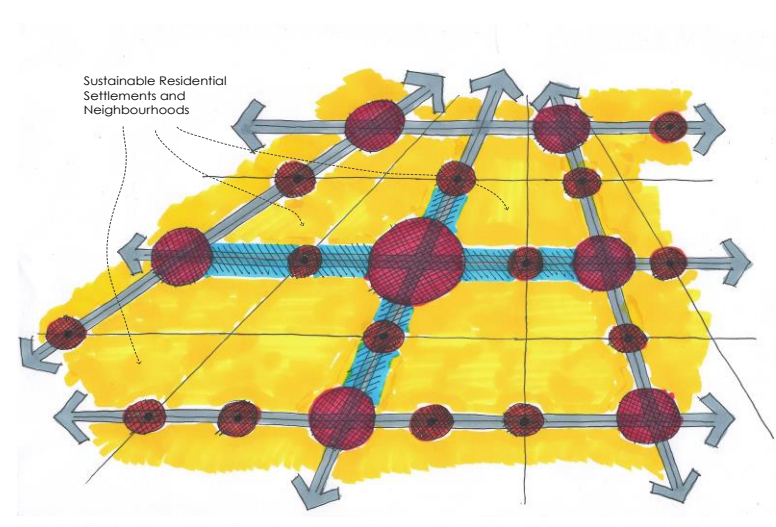
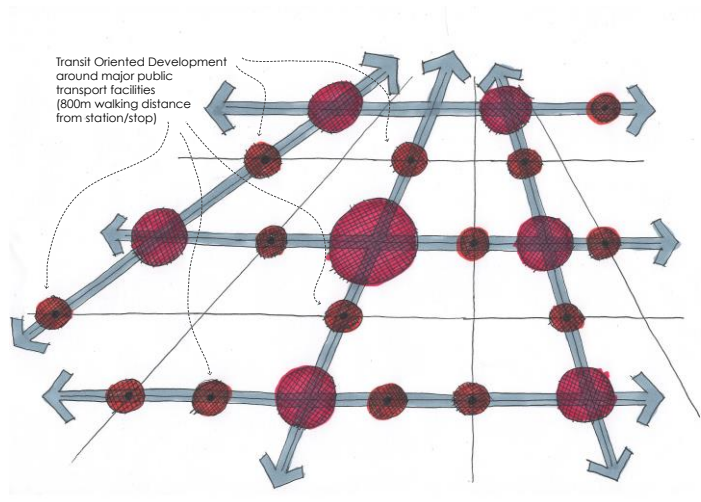
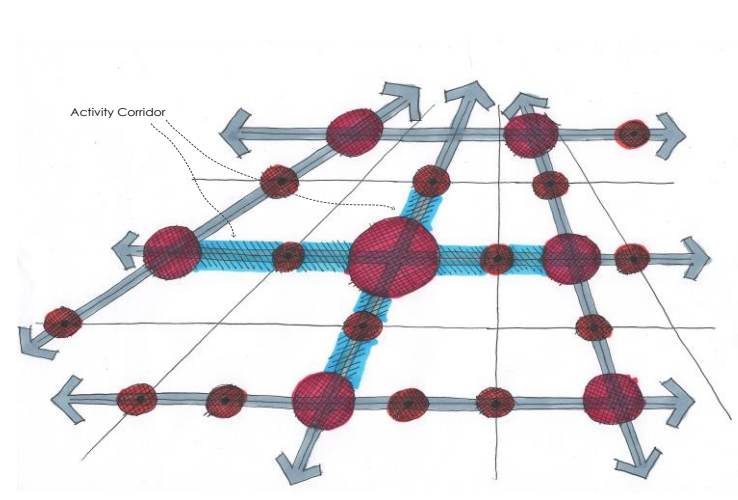
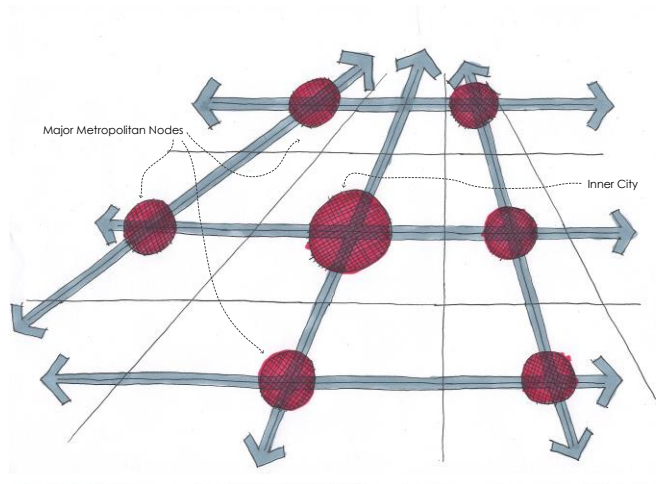
However, development along more sections of the spines should only be permitted subject to suitable access which would normally mean from internal roads. Development along the spines should only be permitted subject to access management strategies to protect the mobility function of these roads.

Small scale economic activity occurs in a linear fashion along most of these roads and in the interest of job creation in these poverty stricken areas it is proposed that the trend be supported from a planning perspective. The residential compatibility of these uses should be monitored to ensure improved living conditions in these northern areas. Nodal concentration however should be encouraged when larger scale uses are considered.




However, development along more sections of the spines should only be permitted subject to suitable access which would normally mean from internal roads.





## Spatial Concepts for Nodes and Corridors






- The interrelationship between a proposed functional road classification and an activity matrix is illustrated by the following table below:

Functional Road Classification	Land Use	Function and Design	Roads and Streets
<b>Highways</b> 	<ul style="list-style-type: none"> <li>No Direct Access to land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Accommodate mainly national, regional and longer distance metropolitan trips.</li> <li>No traffic lights on these roads</li> <li>Access is restricted to the interchanges only.</li> </ul>	<ul style="list-style-type: none"> <li>N4 (PWV2)N1</li> <li>N1</li> <li>N 4 extensions</li> </ul>
<b>Transport Corridors (Class II and III)</b> 	<ul style="list-style-type: none"> <li>Mixed land uses at BRT stations.</li> <li>Mixed uses along sections of trunk route. Mixed uses to front onto trunk route.</li> <li>High density residential along corridor</li> <li>Nodal development with a mixed use character (developments concentrated at intersections and around BRT stations)</li> </ul>	<ul style="list-style-type: none"> <li>Public –transport orientated – with the prioritising of public transport and Non – Motorised Transport over Private transport.</li> <li>Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate.</li> <li>Road space reallocation aiming to re-balance provision between private cars and more sustainable modes such as no motorised transport and the BRT.</li> <li>Limited accommodation for private cars on the Corridor.</li> <li>High accessibility for pedestrians.</li> </ul>	<ul style="list-style-type: none"> <li>In the future Sefako Makgatho Drive Extensions (K14)</li> </ul>
<b>Mobility Spine (Class II and III)</b>  A Mobility Spine is an arterial along which through traffic flows with minimum interruption (optimal	<ul style="list-style-type: none"> <li>Nodal Development at intersections.</li> <li>Mixed land uses at intersections.</li> </ul>	<ul style="list-style-type: none"> <li>Little (exception) or no direct access to land uses adjoining the spine. Access is usually through side roads and service roads.</li> <li>Involves inter-metropolitan and inter-regional routes</li> </ul>	<ul style="list-style-type: none"> <li>Sefako Makgatho Drive (R513)</li> <li>R 573 Baviaanspoort</li> <li>R104 Bronkhortspruit</li> <li>K224</li> <li>K169</li> <li>K54</li> </ul>



Functional Road Classification	Land Use	Function and Design	Roads and Streets
<p>mobility). Much smaller than highways, Mobility Spines are usually made of two lanes of opposite vehicle flow.</p> <p>It serves the purpose of inter-regional and metropolitan movement.</p>		<ul style="list-style-type: none"> <li>No on street parking permitted</li> <li>Very few traffic lights</li> <li>Restricted pedestrian movement</li> </ul>	<ul style="list-style-type: none"> <li>Proposed link between Moloto Road (R573) and Derdepoort Road (M15)</li> </ul>
<p><b>Mobility Roads</b> </p> <p><b>(Class III and IV)</b></p> <p>Primarily serves intra-metropolitan traffic. While this route is characterised by through traffic, trends indicate pockets of mixed use developments locate alongside.</p> <p>It serves as the most important linkages between the Metropolitan Activity Areas (Capital Core/Metropolitan Cores/Urban Cores/Specialised Activity Areas)</p>	<ul style="list-style-type: none"> <li>Medium to high density residential as per density map</li> <li>Nodal development with a mixed use character</li> </ul>	<ul style="list-style-type: none"> <li>Limited direct access permitted (not frequent)</li> <li>Services roads to enhance access opportunities</li> <li>On street parking also permitted close to major intersections and in the vicinity of significant nodes only</li> <li>Plays a collector and distributor function though trips are of a short distance</li> <li>Pedestrian movement along the route in various parts</li> <li>Public transport very important along Mobility Roads</li> <li>Provide public transport facilities</li> </ul>	<ul style="list-style-type: none"> <li>K139 – Outside urban edge</li> <li>K14 – Certain portions are out of the Urban Edge</li> </ul>
<p><b>Activity Spine</b> </p> <p><b>(Class III and IV)</b></p> <p>These streets are characterised by slower moving traffic due to the nature of activity along the street (activity is of paramount importance, mobility is compromised to allow the activity). The street provides a focus for various non-residential and medium to higher density residential developments.</p>	<ul style="list-style-type: none"> <li>Mixed uses along the spine</li> <li>Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>Urban design guidelines important to guide the development along the spine.</li> </ul>	<ul style="list-style-type: none"> <li>Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate</li> <li>High accessibility to land and normally only gaining access from a service road.</li> <li>Mixed land uses along service roads</li> <li>High density development with mixed uses must be promoted in suitable locations along these routes.</li> </ul>	<ul style="list-style-type: none"> <li>R 515</li> <li>Plein Street</li> </ul>

Functional Road Classification	Land Use	Function and Design	Roads and Streets
<b>Activity Street</b>  <b>(Class IV and V)</b> Local collector road within suburb, characterised by small scale (in keeping with the existing character of surrounding residential developments) local economic activities and social amenities	<ul style="list-style-type: none"> <li>• Low-intensity mixed land uses with a focus on community services and economic opportunities</li> <li>• Low to medium density residential developments</li> <li>• Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>• Urban design guidelines important to guide the development along the street.</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (60km/h and less)</li> <li>• Mixed land uses along service roads</li> <li>• Must be provision for pavements</li> <li>• Parking on site</li> <li>• These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>• Section of K169</li> <li>• MJ Rumo</li> <li>• Oak</li> <li>• Hotel</li> </ul>
<b>Residential collector</b>  <b>(Class IV a and b)</b> Local collector road within suburb, characterised by small scale social amenities	<ul style="list-style-type: none"> <li>• Low-intensity community services and as per Council consent</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (50km/h and less)</li> <li>• Must have provision for pavements</li> <li>• Parking on site</li> <li>• These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>• As per map</li> </ul>
<b>Residential collector</b>  <b>(Class V)</b> Local road within suburb	<ul style="list-style-type: none"> <li>• Residential Street</li> <li>• Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (50km/h and less)</li> <li>• Parking on site</li> <li>• Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>• As per map</li> </ul>

## LAND USES

The desired activity's along the activity corridors, streets and nodes is illustrated by the following notation and definition must be used as a guideline and must be read in conjunction with the Nodes and Corridor Map at the end of this section.

### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)



Transport-orientated development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (train station, metro station, tram stop, or bus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs generally are located within a radius of one-quarter to one-half mile (500 to 900 m) from a transit stop, as this is considered to be an appropriate scale for pedestrians.

### NODE



A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport nodes such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

## EMERGING NODES



Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

### RETAIL



Areas of concentration of mixed land uses with the focus on retail

### MIXED USES



Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional ect. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. A mixed-use could refer to retail at street level, institutional on the floor above and residential on the upper floors, or only use per erf. Principles regarding retail, commercial and industrial uses / rights are still applicable as indicated in this document. Mixed land use in an industrial area could include industry, commercial and retail uses.

## OFFICE USES



Means land and buildings used as an office, retail industry, limited places of refreshment, fitness centre, hairdresser, nail bar, medical consulting rooms, medical workshops such as, dental technician, prosthetist, orthotist, pathologists, optometrist technician, or for other businesses such as inter alia beauty salon, pet salon, beauty/health spa, funeral undertaker, place of instruction, uses subservient to the main use. Uses must be compatible to the surrounding area and must focus on serving the local community.

## INDUSTRIAL USES



Light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

## GENERAL PRINCIPLES IN NODES, CORRIDORS AND MIXED USES AREAS

One of the main concerns for non-residential development and high density development within residential areas is the compatibility and interaction of land use changes to the abutting residential uses. The existing characteristics of an area and street plays an important role in the determination of land uses that is considered appropriate and are compatible with the residential component. The permitted land uses shall only be accommodated along the street up to the mid-block line of blocks running parallel to a street or adjacent service lane.

The following general principles are applicable:

- Encourage development characteristics that spread economic impact (Spluma, Objective, promote economic and social inclusion).
- A “walkable” environment- place commercial, housing, jobs, parks and civic uses within walking distance of the community and transit stops ( National Development Plan, GSDF, Principle
- Encourage infill and redevelopment along activity streets corridors within existing neighbourhoods.
- A mix of residential, retail, commercial and community uses needed along activity corridors and streets. (Spluma, Principle 7(a) Spatial sustainability).

- Activity streets must be frontage streets, with emphasis on public interface.
- Locate jobs, retail and commercial near residences to reduce car dependence. (National Development Plan, GSDF, Principle)
- Encourage active interfaces between buildings and streets.
- Higher intensity uses should be located at the centre or core of nodes)
- Residential and non-residential uses combined within the same or adjacent blocks.
- Encourage vertical mixing of uses.



Source: City of Tshwane; West Capital Urban Design Framework 2014

The following criteria shall determine if a particular erf is suitable to accommodate a permitted land use change:

- Acceptable safe access possible
- Adequate on-site parking available
- Adequate space available for landscaping purposes
- Acceptable impact on residential component
- Site characteristics
- Availability of bulk services and infrastructure

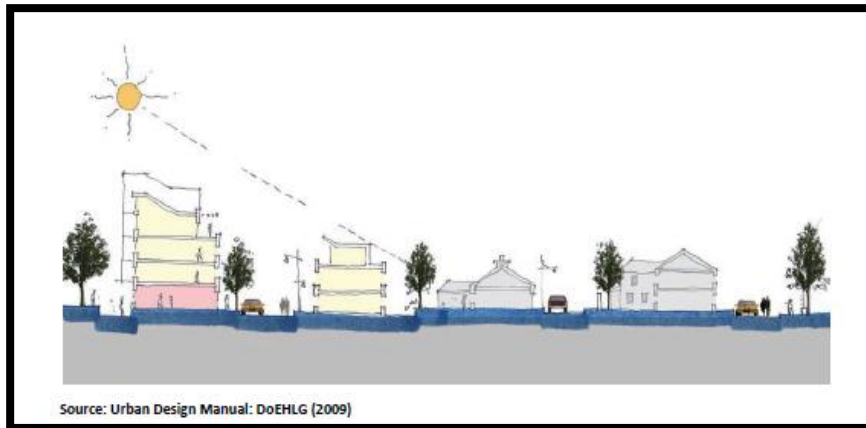
The following Development Guidelines shall be used:

### FAR

- Shall be determined by erf size, parking to be provided on site and the influence of privacy with regard to the surrounding residential properties.

## HEIGHT

- 2 storeys or higher, depending on the locality and surrounding land uses, and in accordance with the relevant town planning Scheme.
- Relate building height to street width and intended character. Urban centres are characterised by a strong sense of enclosure with street spaces that are generally lined by buildings set along the front property boundary.
- Solar access to adjacent structures, situated to the south of a property to be developed, shall be protected through as far as possible from the adjacent structure.

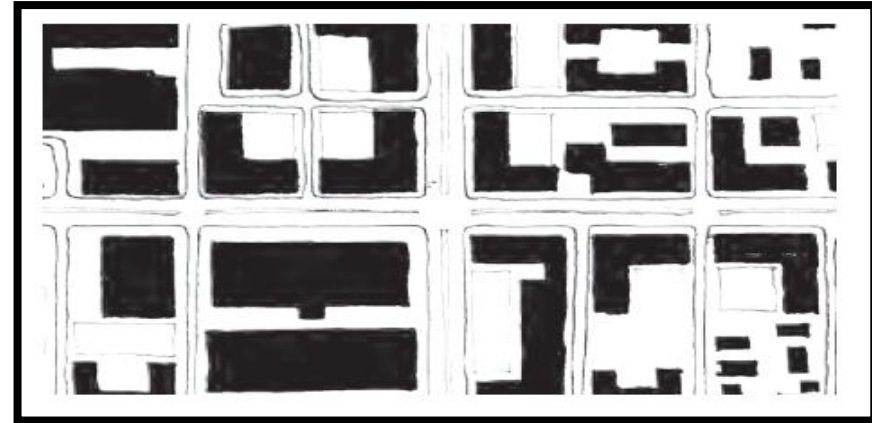


Source: City of Tshwane: Centurion CBD Framework, 2013

- To ensure no overlooking, the following is applicable:
  - No balconies shall be established on the side of the building abutting a residential property.
  - Windows shall either be located at such height or distance from the boundary of a residential property, that they do not enable overlooking.

## BUILDING PLACEMENT

929



- Building position is important in the development of the complete and liveable street concept.
- Buildings must be placed as close as possible to the street boundary.
- Building should be staggered along street boundaries in order to break long street frontages.
- Orient buildings to sidewalks
- Street and building configuration should be designed to create vistas, or to terminate views with a landmark feature, building, or public space.
- Buildings at intersections within the corridor and activity street should provide for landmark features.

## BUILDING LINES

- Buildings must be placed as close as possible to the erf boundary adjoining streets.
- Adequate side building lines should be imposed to protect the neighbouring residential component.
- The area within the building line should be used mainly for parking purposes and landscaping. Minimum 16% of the area should be covered with soft surfaces.

## PARKING

- All parking shall be accommodated on the erf
- No off-street parking shall be allowed.
- Carports shall be located in such a manner that it is not visible from the street
- Parking relaxations will be considered in TOD and Corridors.
- Parking ratios per area and per application.
- Developers should determine their own parking ratio in certain areas.
- Parking ratio's will depend on parking available.
- Discouragement of the use of private car must be reflected in the parking ratio's
- Reduced private parking
- Shared parking can be allowed regardless of whether the zoning ordinance requires any off-street parking, or whether public parking is available
- Parking should be provided sub-surface as far possible.

## PHYSICAL BARRIERS

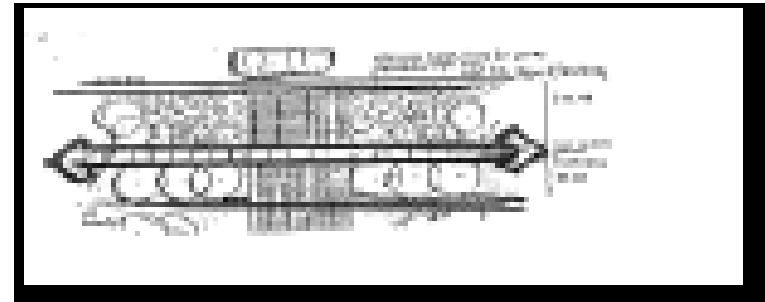
- Walls abutting neighbouring residential properties shall be maintenance free on the side of the adjacent property and constructed in brickwork. The wall shall at least be 2,1m in height to offer more protection to the abutting residential activity. No prefabricated concrete walls are allowed
- A well designed and articulated boundary wall of brick should be constructed on the other boundaries of the site. No prefabricated concrete walls are allowed. The boundary wall should be minimum of 2 meters high and a maximum of 3,0 meters high and should be maintenance free on the side of the adjacent property;

- Physical barriers along the street boundaries shall be semi-transparent to enhance landscaping, architecture and aesthetics. Set back upper levels of tall buildings to help create a pedestrian scale at street level and to mitigate unwanted wind effects.



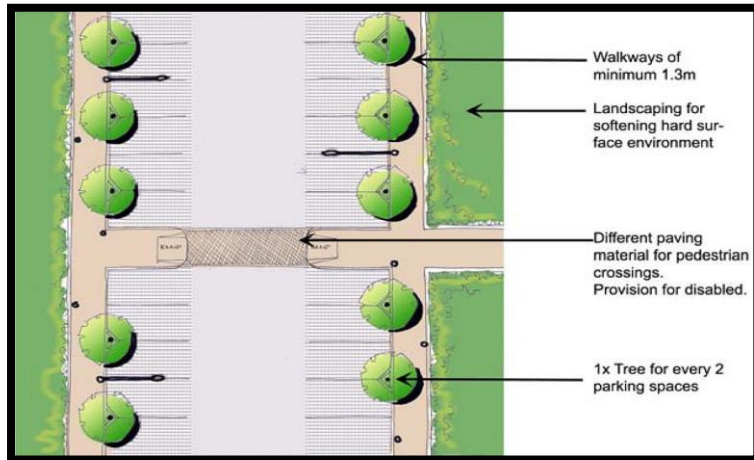
## LANDSCAPING

- Indigenous landscaping shall be incorporated.
- The road reserve between the erf boundaries and the street shall be landscaped in accordance with the landscape development plan. The landscaping should include design measures to prevent on-street parking and include a walkway (at least 2 m wide) to ensure pedestrian safety.



- One tree shall be provided for every two parking spaces.
- Soft landscaping shall form part of parking areas.





## ADVERTISING

- Advertising must be as per Council policy and guidelines.

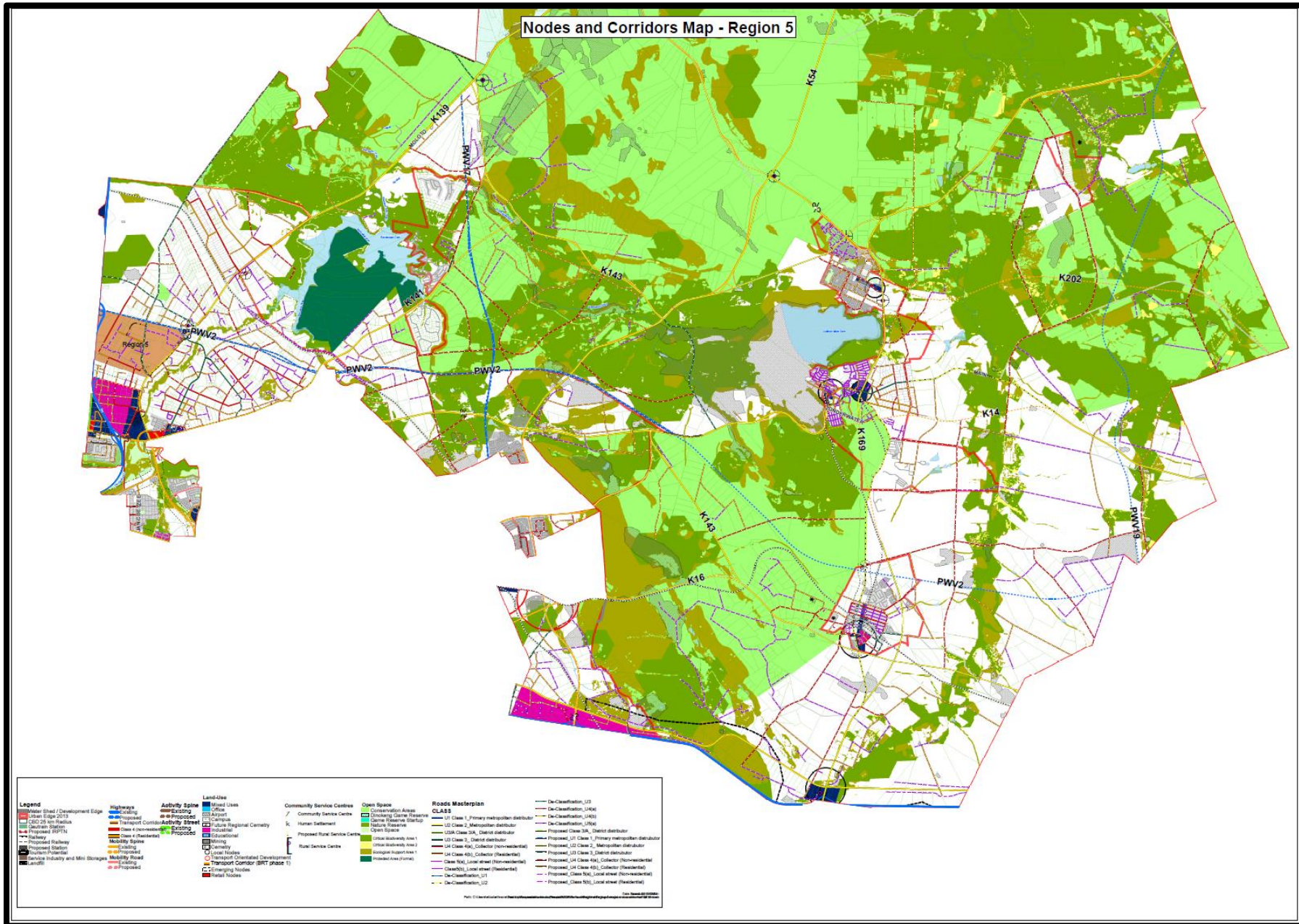
## HEALTH MEASUREMENTS

- Air-conditioning units or compressors shall not be mounted to the exterior walls of buildings without the prior consent of the Municipality.
- Any requirements for air pollution-, noise abatement- or health measures set by Municipality shall be complied with to the satisfaction of the Municipality without any costs to the Municipality.

All refuse areas and service yards shall be screened off with a solid wall and /or landscaping. Refuse areas shall be placed as far as possible from any residential property.







## 4.7 RESIDENTIAL

### Current City Form of Tshwane

- Apartheid left South Africa a Fragmented Spatial Framework
- Urban Sprawl and dysfunctional urban form.
- Low densities mean that public transport cannot benefit from economies of scale.

### Solutions for Tshwane

- Reverse the spatial patterns of apartheid.
- Plan for compact cities and transport corridors.
- Compact cities – more infill and multi –story developments, mix of land uses.
- Density must be public transport orientated.- focus on commuter Rail, Bus Terminals, Taxi routes and BRT.
- Integrate land –use planning and transport planning.
- Reduce the need to travel.
- Public transport must be prioritised over private transport.
- Embrace BRT's monorails, NMT, Pedestrians.
- Disincentivise private car usage – reduce the number of vehicles on the road.

Residential development within Region 5 should be guided by the principles contained in the Tshwane Compaction and Density Strategy. The core principles of this strategy are:

- Density must contribute to the overall structure and functionality of the metropolitan area in that it takes place in a balanced, focussed, structured and meaningful way
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.
- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)

- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment
- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future
- Areas targeted for densification should be well served by social facilities such as education, open space, recreation etc. or should have the potential to be well served by social facilities
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Retain, enhance and encourage cultural assets
- Density's for old age homes and retirement centres, hostels and student accommodation will be evaluated on their own merits where location and accessibility to social infrastructure will play an important role.

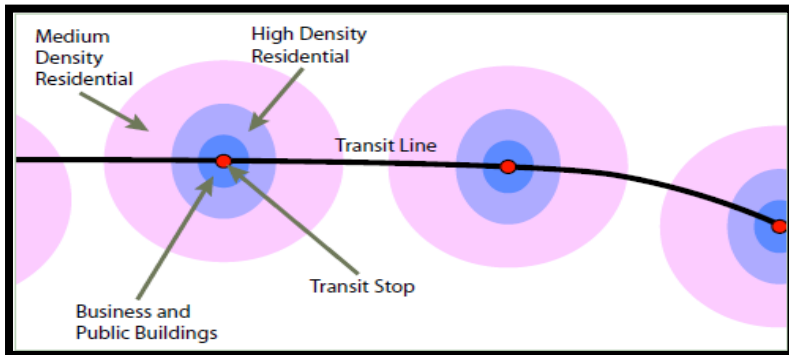
Another important underlying principle of the Tshwane Compaction and Density Strategy, is that higher density developments should not merely be dictated by density, but that design and typology considerations should be of critical importance, as these are the factors that in reality make either a positive or negative contribution to the overall quality of the environment in which they are situated. Density and compaction is not an end in itself, but a means to achieve an overall efficient, integrated and sustainable metropolitan area. Density proposals within Region 2 should therefore not be done for the sake of density, but to achieve a range of other goals, such as :

- increasing accessibility to public transport facilities
- creating the necessary population thresholds for economic growth and viable business development (especially small and medium sized enterprises) in specific areas
- minimising distances between home and work (i.e. integration of higher densities with employment opportunities)
- containing outward expansion of the urban footprint

The benefits of Density and Intensification :

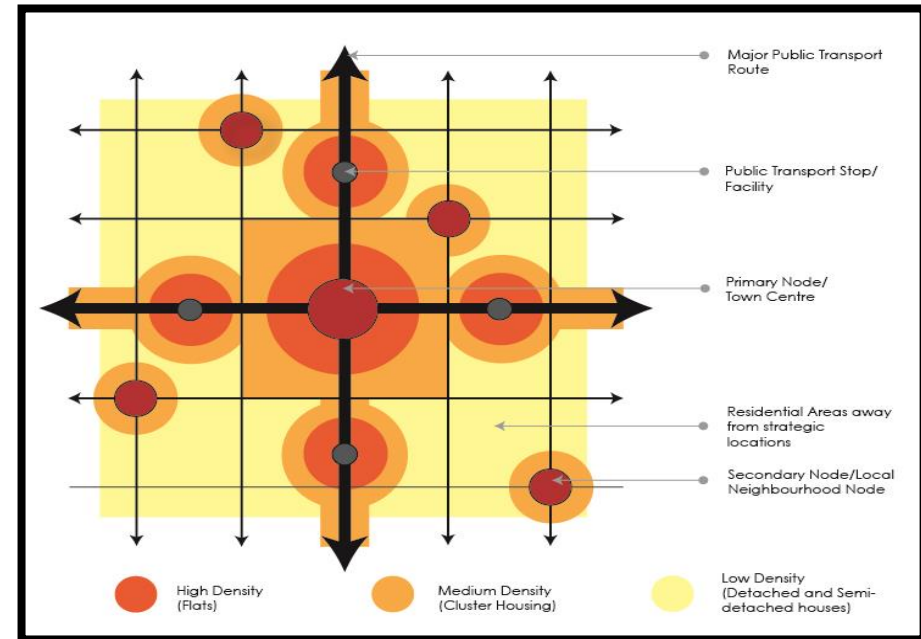
- **Concentrations of people** in areas of high urban activity
- Access of people to opportunity increase

- Population threshold increases which means that a viable market for business and transport is established
- Density is significant for the economic performance of a city
- **Urban efficiency**
  - Travel distances and time
  - Cost of Engineering Infrastructure
  - Public transport becomes more viable
  - High density assures the maximisation of public investments including infrastructure, services and transportation and allows efficient utilisation of land



The strategy proposes four key density zones, namely:

- Concentration Zones
- Linear Zones
- Suburban Densification Zones
- Low density Zones



### Criteria for densification

Applications for densification shall be evaluated against the following criteria: proposed form of property, height, whether sufficient parking is available, privacy of adjoining owners, consolidation of stands and access, northern orientation, character, services available, and unit typology, size of the property, open space.

Densification throughout the city will still be in accordance with availability of services and geological conditions such as dolomite restrictions.

Refer to the density map for a schematic illustration of densifications; it is important to note that walking distances to public transport will be applied in the evaluation of density applications.

All densification applications should adhere to the above mentioned criteria and development guidelines.



#### 4.7.1 CONCENTRATION ZONES



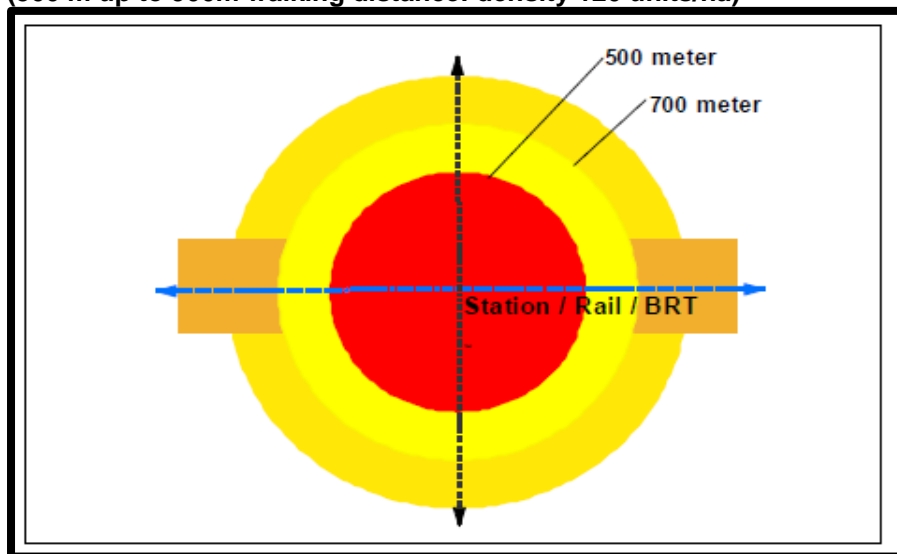
( Less than 500 m walking distance: density + 200 units/ha)

The **Concentration Zones** are the primary focus areas for high density residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within a 700m walking radius of a railway station or a major public transport node.



(500 m up to 900m walking distance: density 120 units/ha)

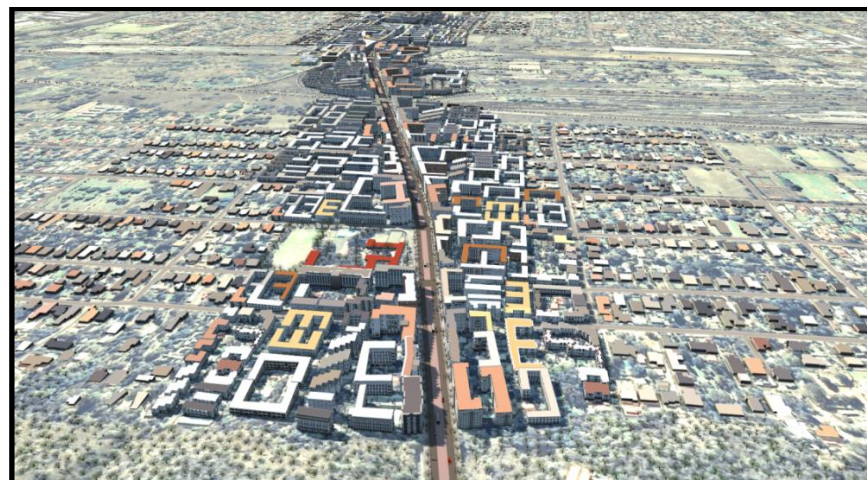


**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport

936

Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within an 700m walking radius of a railway station or a major public transport node. The areas around the existing Gautrain and PRASA railway stations and around the proposed BRT / ITPN stations have been earmarked for higher density transit promotion zones. Densification should take place within a 900m walking radius of a BRT / IPTN station. Densities of + 200 units /ha in nodes and around rail stations will be applicable for the first 500 m walking distance and up to 120 units / ha for the area between 500 m and 900 m. The walking distances will be determined by the distance between stations. The closer the station are to one another the shorter the walking distances will be.

The concentration zones and linear zones call for a drastic change in the built environment in terms of densities, typologies, built form and urban design, moving away from suburban typologies in these areas toward a more urban fabric.



Densities within Concentration zones should not be developed at densities of below 80 units per hectare or less than 3 storeys.

**High density Zones** in Region 5 are focussed on the Urban Cores.

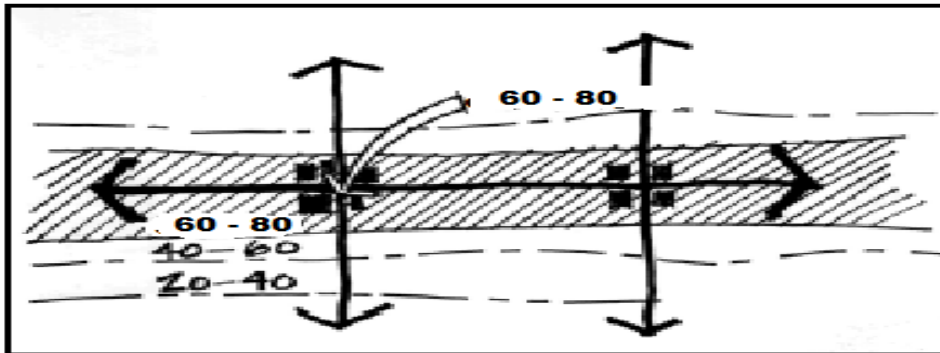


#### 4.7.2 LINEAR ZONES (CORRIDORS AND SPINES)



**( Up to more or less 200 m walking distance from public transport: density up to 80 units/ha)**

For the purpose of densification, linear zones refer specifically to high intensity activity areas that are located along major routes. The routes usually carry high volumes of traffic to areas such as Zones of Concentration and Transit Promotion Zones and thus encourage the feasibility of public transport on strategic routes. The linear zones also connect the urban core areas with one another within the City.



The identification of these linear zones should follow a focussed, selective and phased approach, where only the most important routes are identified in the short term. This is necessary in order to achieve a high level of concentration along each of these routes rather than dispersing development along too many routes, and then the critical mass for public transport viability is never achieved. In terms of the densification strategy, linear zones refer specifically to high activity areas that are located along major routes. The main aim of the routes should be to encourage public transport.

The following areas are deemed existing or potential development corridors along the highways within Region 5 where mixed land uses with the focus on job opportunities will be supported:

- The areas around Plein Street in Rayton.
- The existing nodal area in Cullinan (South Street, Olievenhout, Main and Oak Avenue area as indicated on the densification map.

#### 4.7.3 SUBURBAN DENSIFICATION ZONES



**(density 25 units/ha)**

Suburban Densification Zones are those existing suburban areas where there is potential for moderate densification because of the area's strategic location within the city (within a 25 km radius of the City). This zone makes for good application in areas that are close to places of employment, major retail centres and prominent transport routes, but where it is still desirable and warranted to maintain a suburban character. These areas are indicated in yellow on the Densification Map. The maximum density in these areas will be restricted to a maximum 25 dwelling units per hectare. The exceptions will be the nodal / core areas (as indicated on the densification map) within the suburban areas where densities of up to 200 units / dwelling-units per hectare can be supported depending on available public transport and social amenities. Activity streets in suburban areas as indicated in the RSDF also earmarked for densification up to 80/units per hectare.

Whereas the Concentration and Linear Zones proposes a particular urban environment, both the Suburban Densification Zone and the Low Density Zone are distinctly suburban zones.

Within Suburban Densification areas the core principles of densification are:

- Densification must contribute to the provision of lifestyle choices within the specific area. As an example provision must be made to sustain all the lifestyle phases from young working people and students, families with young children, and elderly people.

- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.
- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment.
- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future. Pedestrianisation must be included into the densification process.
- Areas targeted for densification should be well served by social facilities such as education, place of public worship open space, recreation etc. or should have the potential to be well served by social facilities. Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase.
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Encourage community and stakeholder collaboration.
- Retain, enhance and encourage cultural assets

In essence, within this zone the urban form remains the same as it currently is, only with an increase in general density and a change in typology and density around strategic points within these areas.

Greenfields development (farm portions and small holdings) will be handled on merit and the general principles of density will apply.

#### 4.7.4 LOW-DENSITY ZONES



(up to 10 units/ha)

Low Density Zones are so called because those are the areas in the city where lower densities are actually more desirable, either because of location or *bona fide* special circumstances. The majority of these zones are the peripheral areas that are removed from opportunities such as economic and employment nodes and

mass transportation opportunities and is characterised by long travelling distances to areas of employment. In these areas, higher densities serve no purpose or could actually be detrimental to the functionality of the city, and it is preferable not to encourage population concentrations in these areas. The Low Density Zone however also includes areas that are more centrally placed, but which have special characteristics that need to be preserved, and hence a low density is considered justifiable. These include areas along ridges, where lower densities are more conducive to a built form that is sensitive to the ridge quality from a visual point of view, including issues such as skyline, further spacing of buildings etc. These low density areas will also serve to provide visual relief in between adjoining higher density areas.

Ideally, a Low Density Zone's density should not exceed 10 dwelling units per hectare. Encouraging low densities in these areas are also important to ensure that the higher densities are directed and actually take place where they are desirable and required.

The following areas have been identified within Region 5 as Low Density Zones, even were a density of less than 10 units per hectare shall prevail. Erven directly adjacent to the Magaliesberg Natural Protected Area, one dwelling unit per 1000 m<sup>2</sup> and undeveloped suburban areas outside the 25 km radius of the CBD. Erven directly adjacent to undeveloped Ridge areas as indicated on the densification map and estates around the Roodeplaat dam.

#### 4.7.5 RURAL DIVISIONS



Divisions of farm portions and agricultural holdings will be according to the densification map. The basic principle applicable will be that division of up to 1 ha and larger will be considered) in areas with Council approved piped water.

Divisions of 5 ha (and larger will be considered) in areas without piped water except in cases of high agricultural potential and environmentally sensitive areas. Divisions must take flood lines and water courses into account when applied for.

All areas in the north of Moloto Road that fall into Region 5 will not permit divisions of less than 20 hectare.

Notation	Size	Services
	5000 m <sup>2</sup>	Piped water
	1 ha	Piped water
	2 ha	Piped water
	4ha – 5ha	Piped or Borehole Water
	8.5 ha	Piped or Borehole Water
	10 ha	Piped or Borehole Water
	+20 ha	Piped or Borehole Water

#### 4.8 SUSTAINABLE HUMAN SETTLEMENTS

Sustainable Human Settlements should be provided in accordance with the guidelines as set out in the above Tshwane Compaction and Densification Strategy. Such settlements should be developed within concentration zones and along linier zones with the supporting densities as prescribed. Further human settlements should be provided in close proximity of social amenities and public transport.

##### 4.8.1 INFORMAL SETTLEMENT UPGRADES AND RELOCATION

In Region 5 about 9 000 informal units exist and need basis services.

- Existing informal settlements that fall outside of the urban edge should not be provided with in-situ upgrading. They should rather be relocated
- Informal settlements should only be relocated to areas that **are** geotechnically sound and do not fall within a flood line.
- Compaction, infill and densification should serve as key guiding principles for both in-situ upgrading and relocations.
- Informal settlement management plans should incorporate landscape planning

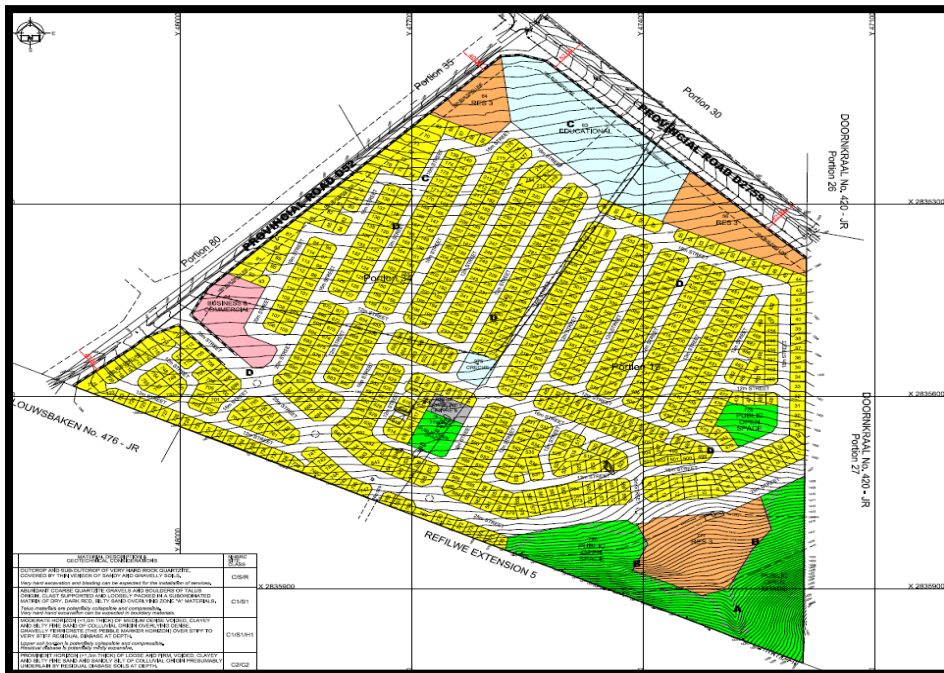
##### 4.8.2 SOCIAL HOUSING



- Housing should provide a range of typologies within strategic nodes in order to address both social and economic restructuring
- Housing typologies should allow for diversity and significant densification in order to address the green economy of spatial planning
- Brownfield development is preferable to greenfield development in order to achieve infill development,
- compaction and rejuvenation of decaying areas (where applicable)
- Housing location should be targeted towards significant places of work opportunity, i.e. metropolitan nodes and primarily and urban cores
- Housing developments should include the provision of or be located next to safe and efficient linkages with space for pedestrians and cyclists.
- Housing location should be well planned to ensure connectivity via public transport to other places of significance in the metropolitan area
- Urban design, landscaping and streetscaping should be incorporated in housing schemes
- Social housing should be an effective component of sustainable human settlements i.e. providing or being located close to social amenities and facilities
- Mixed-use residential buildings should be implemented where possible, allowing for an optimal use of all available resources, supporting transit-oriented development and providing a sustainable living environment

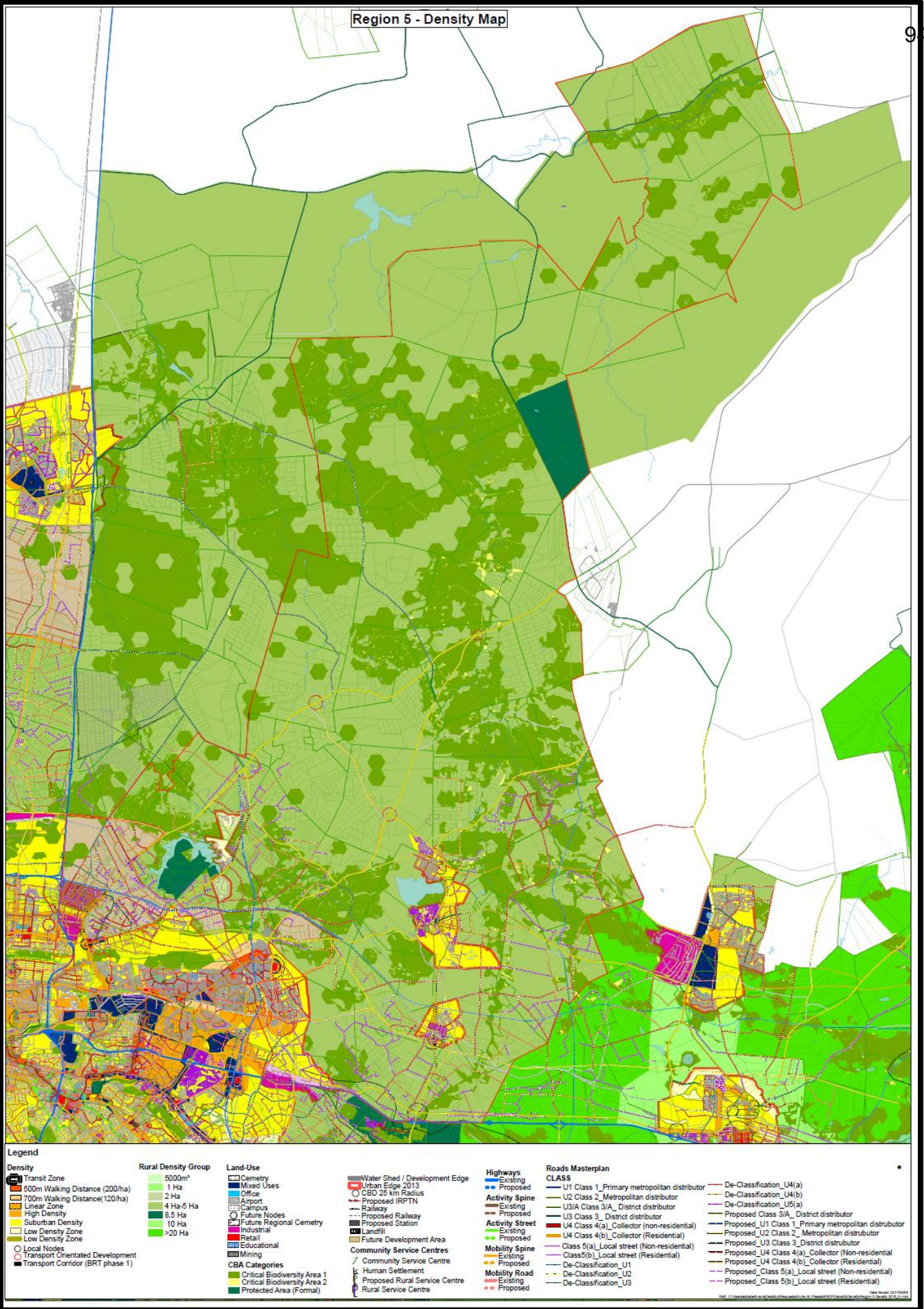
Movement and Connectivity for more information on transit oriented development). Transit-oriented development supports the concept of the 20 Minute Neighbourhood.

In Region 5, large numbers of RDP housing is planned to be developed in Refilwe. In Refilwe Extension 7 about 900 RDP units are to be developed in the short term. In Refilwe Manor and Refilwe Extension 10 a further 2000 units will be build. A mixture of housing types is proposed in these two townships. The principles of "Breaking New Ground" are to be followed when these townships are developed. Schools, Businesses and other social facilities are to be developed as part of these townships.



Source: City of Tshwane: Refilwe Manor











The Moloto Development Corridor has its main objective to increase speed for buses from 70km per hour to 120km/h and from 160km/h to 200km for standard gauge trains thereby reduce travel time for commuters. This part of the government's policy to develop an inter-modal transportation solution and involves the following catalytic projects:

- 13 new train stations
- Koedoesport Rapid Rail Alignment (117km of dual track)
- Modal Integration Points
- Surface 240km of feeder routes
- Tshwane Bus Rapid Transit
- New Dual 67km Carriageway from Siyabuswa to Moloto
- Mamelodi East and Greenview Pienaarsport Alignment

#### 4.9.3

##### **Passenger Rail Agency of South Africa (PRASA) network planning proposals**

PRASA priority corridor in the next 5 years in Gauteng is the Mabopane Johannesburg/Soweto line. The proposal includes upgrading of the capacity in terms of rolling stock and lines. New stations are also planned within this upgrading phase.



#### 4.9.4 Bus Rapid Transit (IRPTN System)

The need for a high-quality, customer-orientated public transport (transit) system was identified that will deliver fast, comfortable and low-cost urban mobility within the City. The City's Integrated Transport Plan (ITP) and the Strategic Public Transport Network (SPTN) approved by Council in January 2007 clearly identified certain corridors that should be further investigated and implemented as mass rapid transport corridors.

##### **Vision and Objectives**

Tshwane's residents depend upon the efficient provision of public transport services to fulfill their daily mobility needs. The integration of the different rail, bus, minibus, and non-motorised transport options remains a major goal in delivering more convenient and cost-effective services. The proposed Implementation Plan seeks to articulate the vision and steps required to implement a public transport system that integrates all modes into a seamless and high-quality network.

#### 4.10 RURAL AREAS

The demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order i.e. to protect the Environmental sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land use development in the less sensitive areas. The Rural map at the end of this section will be applicable to the Rural areas of Region 5.

The Tshwane Rural Component will promote:

- An effective response to rural poverty
- Measures to ensure food security by maximizing the use and management of natural and other resources
- Promote the prevention of irreversible loss of productive agricultural land.
- Limit the fragmentation of productive agricultural land.
- Creation of vibrant, equitable and sustainable rural communities
- Contribution towards the redistribution and sustainable use of all potential agricultural land
- Creation of employment and business opportunities for the existing rural population
- Aims to prevent natural disasters like erosion and pollution and other detrimental effects on natural resources
- Formalization of residential settlements according to the agri village concept
  - Accessibility to community facilities, work opportunities and housing for all

- Maintenance of acceptable standard for roads and other modals
- The provision of Public transport as a service for the more densely rural areas.
- The Identification of multipurpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations.
- Provision of Adequate and respectable services to improve living conditions.
- Attention to the matter of ownership and tenants' rights especially in areas where tribal land ownership exists.

##### 4.10.1 Major Rural Roads

Each Region shows major roads and routes of Metropolitan context through the Region ensuring movement patterns and the continuation of roads and corridors for the greater Metropolitan area.

The following major roads serve the Rural Component of Region 5:

- N1 (existing)
- N4 (existing)
- K 169 (existing)
- R54 (existing)
- K139 (existing)

##### 4.10.2 Urban Edge

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

As indicated in Part 2 “Metropolitan Context” of this document the Urban Edge cannot be seen as the only management tool to demarcate the Rural Component of Region 5. The urban edge was previously determined by The Gauteng Spatial Development Framework but in 2012 it was decided by Gauteng Province that Metros could determine their own edge. The urban edge in the northern area as shown on the previous RSDF and LSDF was still determined by the Province in its present location, with good reason at the time.

Development of new townships, especially all inclusive townships that included schools, clinics, libraries, retail and different types of housing typologies have not materialised fast enough for a number of reasons, i.e.

- Shortage of bulk infrastructure (water, sewerage and roads)
- Electricity problems
- Limited funding available for housing stock.
- NDPG funds were not allocated as promised.
- Shortage of funds lead to only RDP types of housing to be erected without variations in typologies.
- Natural increase in population was exacerbated by influx from outside the area.

#### 4.10.3 Development Edge



Compliments and corresponds mostly with the Provincial Urban Edge to indicate the extend of the Urban Fabric but deviates in some instances and only in some Regions from the Urban Edge where it follows the line indicating the non-availability of services infrastructure in the Region. The resulting area caused by the deviation between the edges can realistically not be developed in the near future and need to remain rural in character until such time that services can be provided.

#### 4.10.4 Future Urban Development Areas



These areas that results from the non- availability of services will form part of the Urban fabric in the future but needs to be planned for and preserved as Rural areas in a sensible way that will not constrict its incorporation when needed.

The rural-urban fringe located beyond most suburbs, where low-density suburban development meets rural and semi-rural areas. Often contains a mixture of land uses, including large-lot suburban residences, country estates, low-density commercial development, and the remaining agricultural and rural land uses. Specific concerns arise with such developments regarding the creation of “leap-frog” development that stimulates further sprawl of the urban area. By contrast, the small holding and agricultural potential of this zone can be planned to constitute an integral and dynamic part of the city economy (sometimes referred to the “urban breadbasket”)

A Future Urban Development Area has been identified as part of the N1 corridor precinct. The Future Urban Development Area is situated to the east of N1 and south of the proposed N4. This area represents a natural direction of growth of the greater N1 Corridor area. Due to the lack of Engineering services in the Derdepoort / N1 area Future Urban Development Area, there is a development edge that basically runs parallel to the N1 / Proposed N4 highway

The area comprises the farms Kameeldrift 298-JR, Derdepoort 326-JR, Kameeldrift 294-JR, Leeuwfontein 299-JR, Franspoort 332-JR, Doornpoort 295-JR, Zeekoegat 296-JR) as indicated by the Map (Density Map Region 5)

Proposed Development Guidelines for development in these areas can be summarized as follows:

- The contribution of the proposed development towards the goals of the City strategy and Metropolitan Spatial Development Framework.

- The availability of bulk engineering services – especially water and sewerage
- The environmental sensitivity of the area – obvious considerations such as watercourses, ridges
- Proximity of site to public transportation routes/facilities such as stations
- Proximity to other supporting social facilities, economic opportunities, retail
- Physical features that may define the development – such as railway lines/watersheds/ provincial roads/environmental areas
- Liveable communities will have to be developed by means of social services such as schools, police stations and other amenities.
- Aesthetics and urban design guidelines will have to be provided with a diversity of housing typology which breaks from the tradition of monotonous housing schemes which have dominated the South African landscape for too long.
- The provisions of sustainable economic opportunities within these areas.

#### 4.10.5 Management Zones



The Management zones are areas not considered suitable for urban development as they are not well located in terms of the larger urban structure and areas of opportunity and/or are characterised by environmental sensitivities as indicated by the C-Plan and Open Space Framework, which are important to protect from a metropolitan perspective. Rural development such as low density eco and equestrian estates will be supported depending on services that can be provided. Within these Management Zones land uses and densities, which do not fit into the denser urban complex, should be permitted. Uses supported in the management zone would be Lodges, Wedding Venues, mini storage, children party venues. The availability of services and the ease of access to major roads will play an important role in the evaluation of no residential uses as mentioned above. the easy of Non-residential uses serving the rural population and surrounding urban areas should be concentrated in

Community Service Centres as indicated on the rural map. Locations at the intersections of major Roads will be supported.

#### 4.10.6 Agricultural High Potential Areas



Where so indicated certain land in Tshwane Rural has unique agricultural potential in terms of its location, soil quality, being close to irrigation and other amenities or able to provide high yields and or produce with specific feeding qualities. These quality areas have importance on Regional, Metropolitan and even National level and should be preserved and used in terms of their uniqueness only. Food produce for the country as a whole should be maintained and improved for future generations.

Productive agricultural land will be protected as far as possible in terms of this framework. Fragmentation of agricultural high potential areas will be restricted to a minimum. Agri- industry will be supported in and in close proximity of agricultural high potential areas.

#### 4.10.7 Sensitive Protected Areas /Biodiversity Zone



Throughout Tshwane there remain farm portions outside of the Urban Edge that will continue to be used for agricultural purposes. These areas are sometimes already enclosed by other land uses but are not earmarked for change yet. It is necessary to preserve the agricultural and rural character and these areas need to be protected from other uses

Sensitive protected areas. (Combination of Biodiversity Plan protected areas), including (Ridges and Streams, Natural resources, Fauna and Flora protected places / areas). These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Protected Area of Region 5 is located mainly along the Magaliesberg Protected Nature Area along the southern boundary of the

Region. This area should be managed through environmental codes, to protect the basic resources. Only development in line with the conditions set out in the following tables should be considered.

These areas should be managed through environmental codes, to protect the basic resources. Only development in line with the conditions set out in the following tables should be considered. The Sensitive Protected Areas include important areas, irreplaceable areas, protected areas, ridges and blue ways in line with the C-Plan

#### 4.10.8 Sensitive Ridge Areas



Sensitive Ridge area as indicated on the C Plan should be protected as far as possible in terms of development. Magaliesberg Protected Nature Area are also regarded as sensitive. All development will be restricted in terms of environmental considerations. These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content. The Sensitive Ridges of Region 5 is located mainly along the Magaliesberg Protected Nature Area along the southern boundary of the Region. This area should be managed through environmental codes, to protect the basic resources. These areas should be managed through environmental codes, to protect the basic resources.

#### 4.10.9 Heritage and Cultural protected Areas

Heritage and

Similar to monumental protection of structures, places and land within the urban context there are equally important structures places and land found in Tshwane's Rural areas that need protection. In most cases the best protection can be provided when it is also developed and operated as a Tourism attraction. Region 5 hosts a provincial heritage that was identified by the Gauteng Department of Sports Arts and Culture. Komjekejeke Heritage Site is located on Remaining Extent of the farm Downbern 594-JR in the east of the N1 and off the Walmansthal off-ramp.

Once a year the Amandebele tribe gather in the area to celebrate their culture and heritage. The National Department of Tourism is investing more than R20 Million in the area as part of government contribution and enhancement of the project.

The Italian Military Veterans Graves are located on the farm Zonderwater 482-JR inside the Zonderwater Prison in the Cullinan area. The Italian Embassy organises tours every year to celebrate the site for the Italian Military Veterans during the World War II. There are also Local Economic Development exchange programmes organised by the Embassy to foster relation between South Africa and Italy.

#### 4.10.10 Tourism Potential Places/Areas

Tourism

Of natural and economic importance for Tshwane is the accrument and expansion of the already known places of tourism, tourism attractions and tourism activities. Places with tourism potential occur throughout Tshwane's rural areas. Conservation and preservation needs to be maintained and tourism potential exploited without damaging overall natural and rural character. Different tourism related uses such as picnic areas, lodges, wedding venues and arts and craft related uses including places of refreshment will be supported in these areas. Commercial uses and uses such as storage and light industrial uses should not be supported in these areas. Tourism potential Place making opportunities around the Roodeplaat Dam and Cullinan town centre.





#### 4.10.11 Conservancies

##### Conservancies

Proclaimed conservancies have legal standing and management prescriptions. Conservancies strive towards preservation and the protection of their present state and the notion should be honored in the Rural context and the evaluation of development proposals.

There are five conservancies that have been identified in Region 5. These are:

- Cullinan Conservancy (the farms Elandshoek 337-JR, Pienaarspoort 339-JR, Bredell 661-JR, Donkerhoek 370-JR, Carlsure 336-JR, Doornkloof 481-JR and Rietfontein 366-JR)
- Brandbach Conservancy (the farm Brandbach 471-JR)
- De Tweedespruit conservancy (the farms Doornkraal 425-JR and Doornkraal 420-JR)

- Seringveld Conservancy (the farms Kameelfontein 297-JR, Oog van Boekenhoutskloof Alias Tweefontein 288-JR, Beynespoort 335-JR, Krokodilspruit 290-JR)
- Buffelsdrift Conservancy (the farms Bufeeldrift 281-JR, Walmansthal 278-JR, Haakdoornlaagte 277-JR)

#### 4.10.12 Game and Nature Reserves

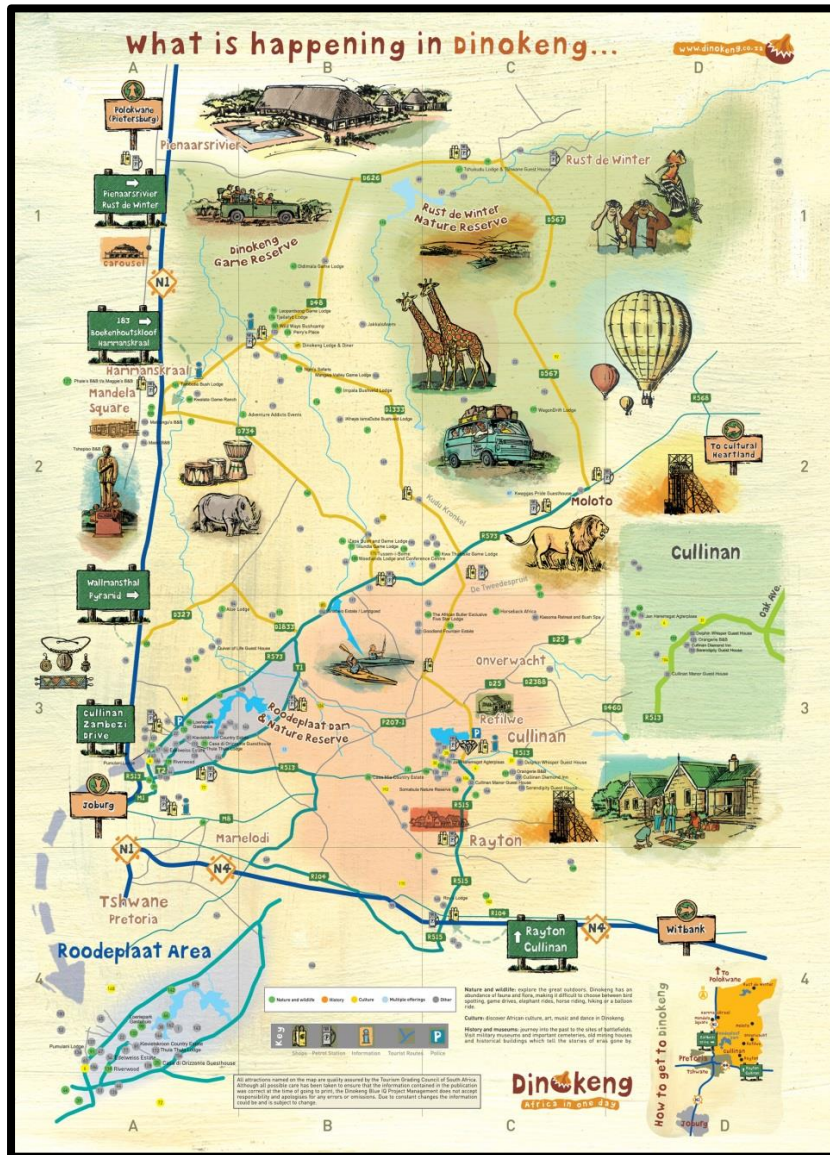
##### Game and Nature

The following places with tourist potential can be found in Region 5:

- Dinokeng Game Reserve

The Dinokeng Game Reserve is the first free-roaming Big 5 residential game reserve in Gauteng next to an urbanized area. It is a private/ public initiative for which planning and development started in the early 2000's. It was officially opened on 22 September 2011 after the introduction of four of the Big 5.





#### 4.10.13 Mines and Places of Manufacturing

Mines/  
Places of

There are few and dispersed mines and or places of manufacturing in Region 5. All of them need to be managed for their time of existence and specific rehabilitation programs should be investigated and installed. Protection measures should be implemented for adjacent land and sensitive environments.

Currently there are two main mining groups in Region 5 namely; Cullinan Diamond Mine that is operated by Petra Diamonds for diamond mining and secondly, Vergenoeg Mining which concentrates on Chemicals and Fertilizer mining. The two mining groups are the ones that contribute a large part of the Mining Social and Labour Plan in Region 5. There are other small sand mining businesses that operate in the area which contribute in their own way to the economy of region 5.

#### 4.10.14 Human Settlements



There are a number of places in the Rural Component of Tshwane where villages and other forms of human settlements occur. Some are tribal in nature with official captaincy while others are just a habitual conference of people living together. Some have legal support while others are just illegal squatters. It remains a sensitive issue how to deal with settlements and in each specific case measurements should apply how to best resolve settlement issues. Settlements to remain should be formalized and provided for in terms of human needs and basic services. A settlement that must move needs planning according to an approved program. Specific measures must be taken to manage adjacent land.

#### 4.10.15 Community Service Centres

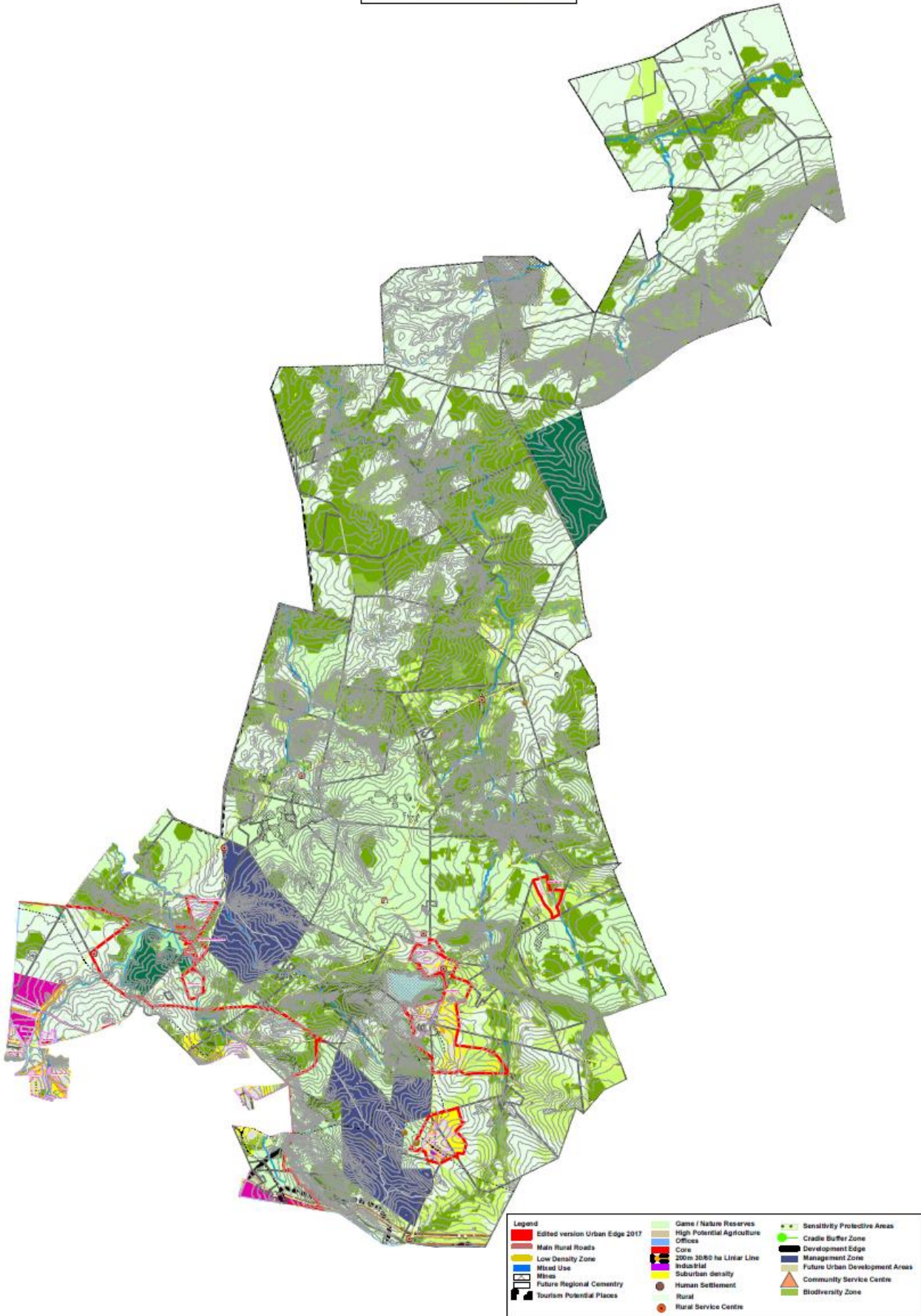


Remote rural areas most of the time do not have the convenience of facilities and amenities within easy reach and sometimes have to rely on the closest urbanized area to fulfill certain basic needs. Because of the extensiveness of most Rural areas it is therefore most logical to concentrate whatever facilities, services and amenities that can and should be provided together close to the bulk of the population at a location that is the most accessible to all. As transport provides accessibility, road junctions or cross roads tend to provide most accessible locations for surrounding populations in vast Rural areas. It is the challenge of each region to identify such suitable and accessible location/s to establish Community Service Centre/s for its rural component.

Community Service Centres are areas that serve local community by providing local services convenience at walking distances. Onverwacht and De Wagensdrift Settlement form some of the key Community Service Centres located in Region 5. There is a need to promote limited retail, community services such as Library, Mobile Clinics and other services in the area. The areas can be sustainable within their own right and government and private sector need to work together to promote controlled development in those centres.



# Region 5: Rural plan



#### 4.11 OPEN SPACE AND ENVIRONMENTAL AREAS

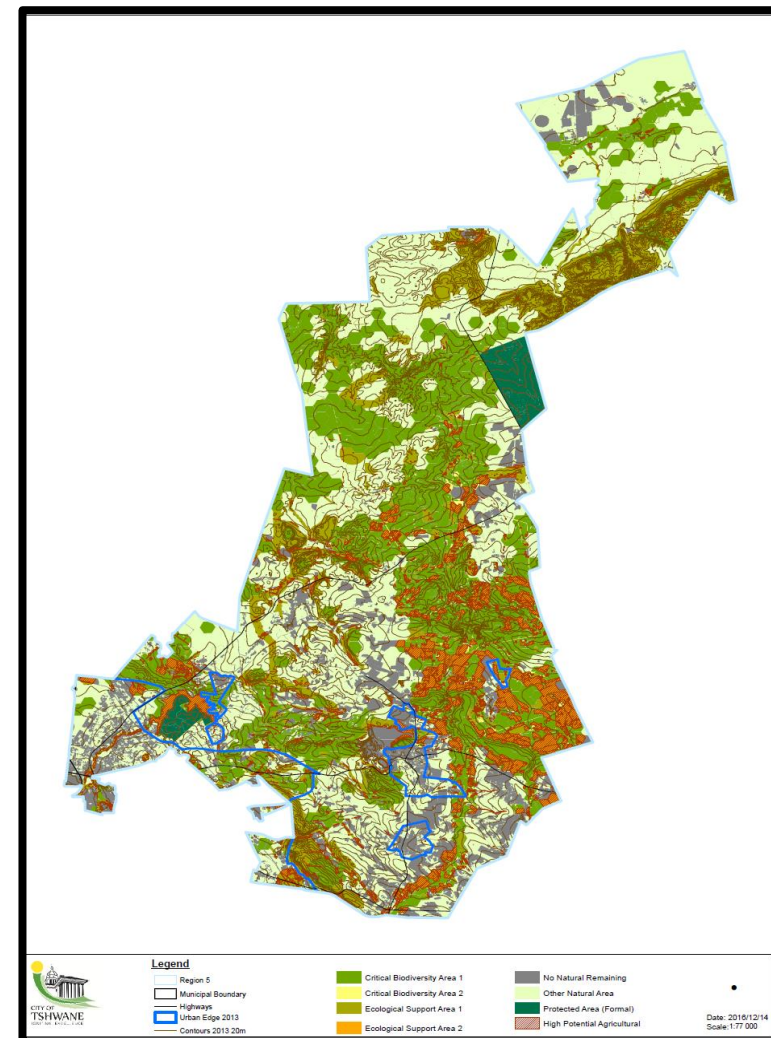
The RSDF plan does not indicate the whole Metropolitan open space network, because of its concern with open spaces on a regional and/or metropolitan scale only. The plan shows as 'Open Space' all rivers and water courses, all mountain ranges and ridges as indicated in the Tshwane OSF, all protected areas, conservation areas and conservancies, as well as the major brown and red nodes. Brown nodes include recreation resorts, multipurpose park/sport facilities and golf courses. The plan also shows as 'Environmental Areas' all irreplaceable, important and high ecological sensitivity sites, as identified and defined by GDARD. Less important brown and red nodes, brown and red ways, and grey nodes and ways are not shown. For complete and detailed information regarding the Metropolitan open space network, it is essential and of utmost importance that the Tshwane OSF plan is always consulted together with the RSDF plan. The environmental features of Region 5 are major form giving elements that determine the surrounding urban structure.

The region is characterised by the following aspects:

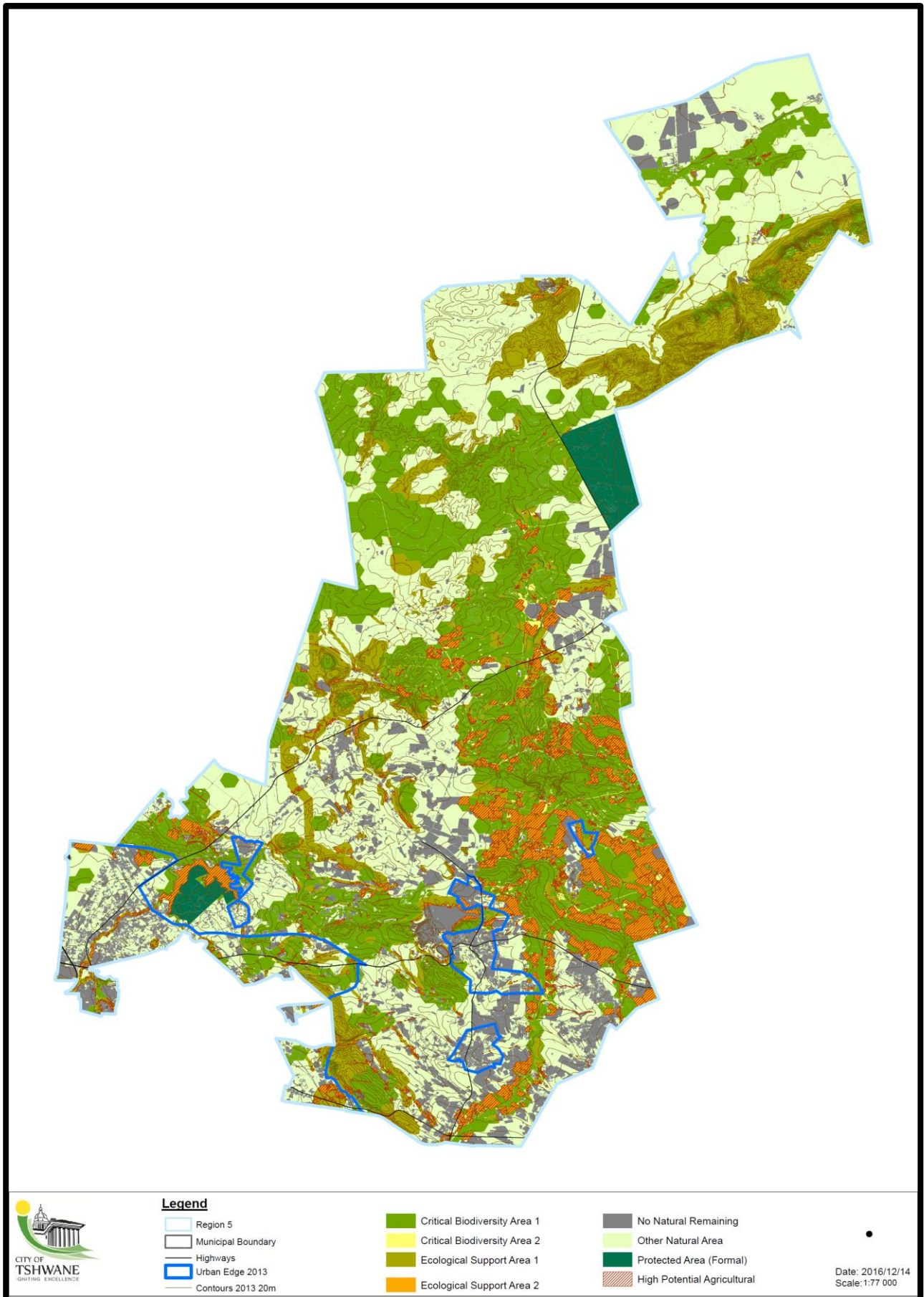
- Significant ridge systems in the southern parts, notably the Magaliesberg, Hills and further north east;
- The rural area is characterized with nature conservation (including the Dinokeng Blue IQ project of Gauteng), tourism and agricultural land uses.
- Significant watercourse systems throughout the area, most notably the Skinner Spruit and its tributaries, and Hartebeesspruit;
- The municipal area has vast open spaces that are mainly natural in the northwest and cultivated in the eastern part.
- Pristine natural environment around the Roodeplaat Dam.
- Tourism potential Place making opportunities around the Roodeplaat Dam and Cullinan town centre.

Discussions with GDARD and the Municipality's Environmental Planning Section must be held before any development or change of land-use application can be submitted, to determine whether the important sites,

irreplaceable sites and high ecological sensitivity sites are subject to a possible E.I.A. survey.







## LAND USE PLANNING GUIDELINES -

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Protected Areas</b>	Formal Protected Areas and Protected Areas pending declaration under NEMPA.	Maintain natural land. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Maintain or obtain formal conservation protection.	Conservation and associated activities.	All other land-uses.
<b>Critical Biodiversity Areas (1)</b>	Areas required to be maintained in a natural or near natural state to meet targets for biodiversity pattern (features) or ecological processes.	Maintain natural land and ecological processes. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Obtain formal conservation protection where possible. Implement appropriate zoning to avoid net loss of intact habitat or intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations with strict control on environmental impacts and carrying capacities, where the overall there is a net biodiversity gain. Extensive Livestock Production with strict control on environmental impacts and carrying capacities. Urban Open Space Systems	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production (all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures). Arable Agriculture (forestry, dry land & irrigated cropping). Small holdings
<b>Critical Biodiversity Area (2)</b>	Cultivated landscapes which retain importance for supporting threatened species	Maintain current agricultural activities. Ensure that land use is not intensified and that activities are managed to minimize impact on threatened species.	Avoid conversion of agricultural land to more intensive land uses which may have a negative impact on threatened species or ecological processes.	Current agricultural practices including arable agriculture, intensive and extensive animal production, as well as game and ecotourism operations, so long as these are managed in a way to ensure populations of threatened species are maintained and the ecological processes which support them are not impacted.	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). More intensive agricultural processes than currently undertaken on site.



Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Ecological Support Areas (1)</b>	Natural, near natural and degraded areas required to be maintained in a ecologically functional state to support Critical Biodiversity Areas.	Maintain ecological processes.	Implement appropriate zoning and land management guidelines to avoid impacting ecological processes. Avoid intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations. Extensive Livestock Production. Urban Open Space Systems. Low density rural residential, smallholdings or resorts where development design and overall development densities allow maintenance of ecological functioning.	Urban land-uses including Residential (including golf estates), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production ( all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures) Arable Agriculture (forestry, dry land & irrigated cropping). Note: Certain elements of these activities could be allowed subject to detailed impact assessment to ensure that developments were designed to maintain overall ecological functioning of ESAs.
<b>Ecological Support Areas (2)</b>	Areas with no natural habitat which retain potential importance for supporting ecological processes.	Avoid additional impacts on ecological processes.	Avoid intensification of land use, which may result in additional impact on ecological processes.	Existing activities ( e.g. arable agriculture) should be maintained, but where possible a transition to less intensive land uses should be favoured.	Any land use or activity which results in additional impacts on ecological functioning, mostly associated with the intensification of land use in these areas (e.g. Change of floodplain from arable agriculture to an urban land use or from recreational fields and parks to urban).
<b>Other Natural Areas</b>	Natural and intact but not required to meet targets, or identified as Critical Biodiversity Areas or Ecological Support Areas.	No management objectives, land management recommendations or land-use guidelines are provided as these areas are outside the ambit of the Bioregional Plan. These areas are nevertheless subject to all applicable town and regional planning guidelines and policy. Where possible existing transformed areas should be favoured for development before "Other natural areas" as before "Other natural areas" may later be required either due to the identification of previously unknown important biodiversity features on these sites, or alternatively where the loss of "Critical Biodiversity Areas" has resulted in the need to identify alternative sites.			
<b>No natural habitat remaining</b>	Transformed or degraded areas which are not required as Ecological Support Areas, including intensive agriculture, urban development, industry; and infrastructure.				



4.13 SOCIAL FACILITY PLANNING

From a spatial or location perspective, the clustering of parks and social facilities in and around corridors and other points of highest accessibility (such as major transport facilities) is of vital importance.

Different social facilities such as schools, clinics, pay points, library's, active open space and others should be clustered at one central point in the residential neighbourhood and should be accessible in terms of public transport.

Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase. Open green space should not be privatised. Existing open spaces and parks must be protected and not used for development purposes

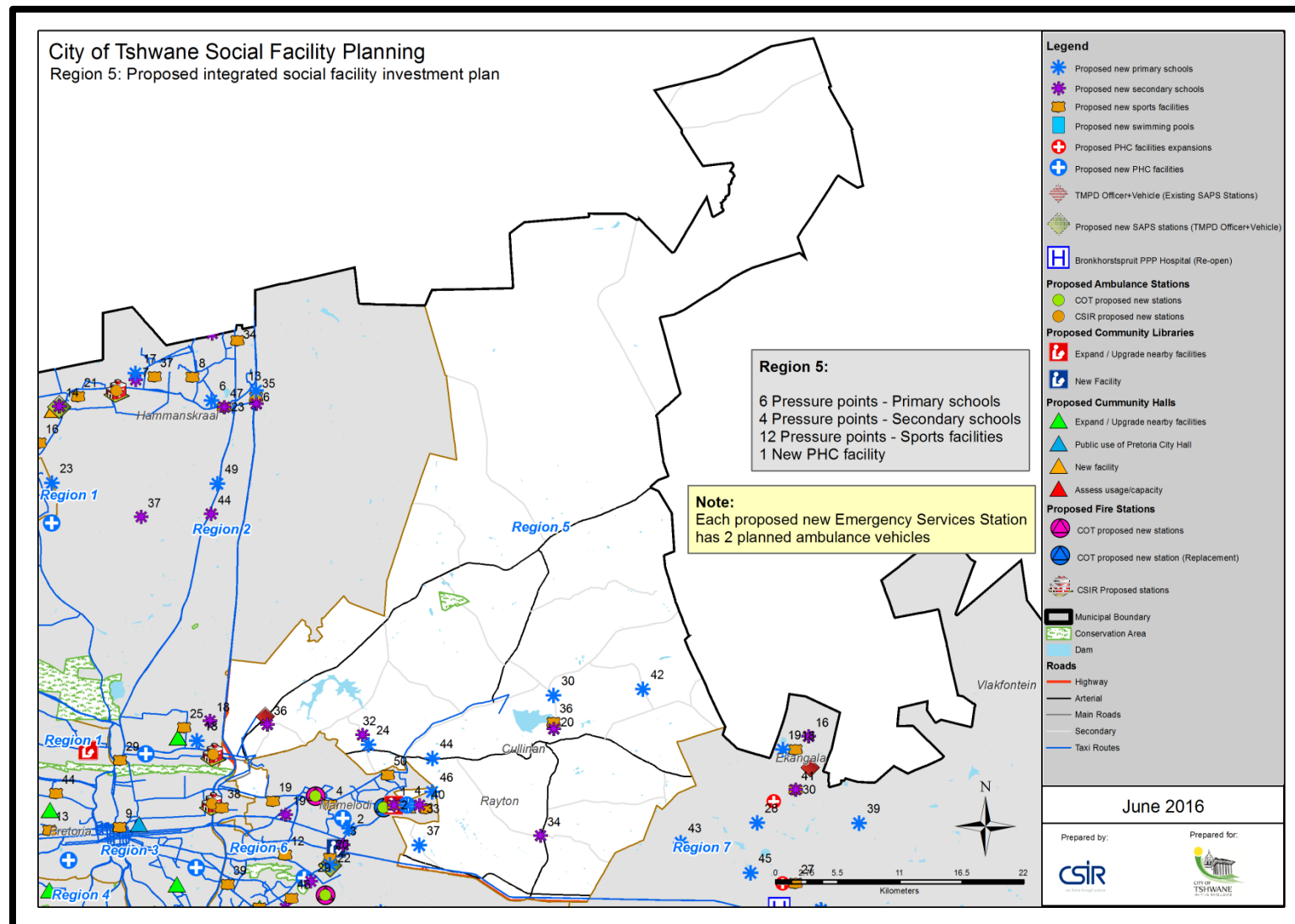
Encourage community and stakeholder collaboration; and retain, enhance and encourage cultural assets. Neighbourhood amenities must be provided as densification takes place.



Where neighbourhoods lack sufficient open space, new parks and recreation areas must be introduced, especially in areas earmarked for higher density development. Activity Support is the presence of activity planned for the space. Development designs should locate plazas, for example, in places where they are most likely to be used for gatherings (both organized events and informal meetings).



Primary schools identified pressure points and their attracted population / demand – Region 5		
Attracted population	Facility equivalent	Suburb / Sub-place
8 088	An equivalent to 8 schools of 1000 pupils	Mamelodi – Close to Meetse-a-Bophelo School
1 133	An equivalent to 1 school of 1000 pupils	Leeuwfontein Estate
798	An equivalent to 1 school of less than 1000 pupils	Refilwe





## PART FIVE: DETAIL PRECINCT PLANS

### 5.1 EXISTING PRECINCT PLANS

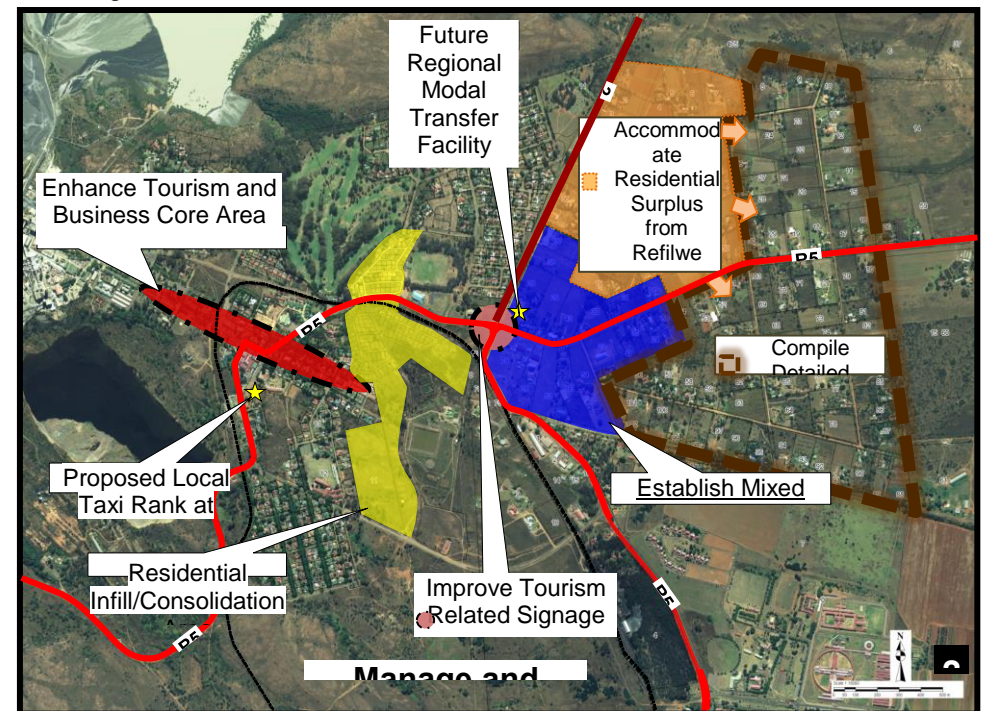
Previously a number of precinct plans and policies have been developed for areas within the region which are in line with the CDS and MSDF.

#### 5.1.1 CULLINAN NODE

Cullinan Town is located 45km from the Pretoria City Centre. Cullinan is an existing emerging node within the City of Tshwane which has been identified by Blue IQ as one of the tourism hubs within the Dinokeng Nature Reserve. The area is characterized by retail, low density residential, presence of tourism sites such as Big hole Cullinan mine tours and government offices. The Cullinan Fourways Crossing should become the future economic hub of the Cullinan area by incorporating mixed land uses for development of the node. Cullinan is very central within Region 5 as it serves to connect the movement of transport and people from the Ekangala area, Rayton, Refilwe and surrounding farms into the Pretoria City centre. There is a need to expand engineering infrastructure provision into the Cullinan Fourways and Lewzene Agricultural holdings in order to attract both public and private sector investment in the area. Currently the eastern part of road K169 requires provision and extension of engineering services which are only located in the main town of Cullinan. Densification of this emerging node is supported to ensure proper functioning of the node and to develop into a mixed use node. The future Cullinan node should include variety of land uses such as light industrial, high density residential development and commercial uses. The integration of Cullinan node with Refilwe Township which is located 3km from the Cullinan Fourways Crossing is critical. Future residential development should be located in the Lewzene Agricultural Holdings based on sound development principles and supported by engineering services.

A number of precincts can be identified within the Cullinan node:

- Core area: The intersection of road K169 and Hospital Street forms part of the core area of the Cullinan node. These include Remainder of portions 64, 67, 66, 27, 28 and portions 85 and 29 of the farm Kafferskraal 475-JR
- Future Residential areas: the areas outside the urban core of the Cullinan Fourways crossing are demarcated for low, medium and high density residential development as per Cullinan Fourways Precinct plan
- Densification will be evaluated carefully within the existing Cullinan Town based on the tourism character of the area and within strong architectural guidelines





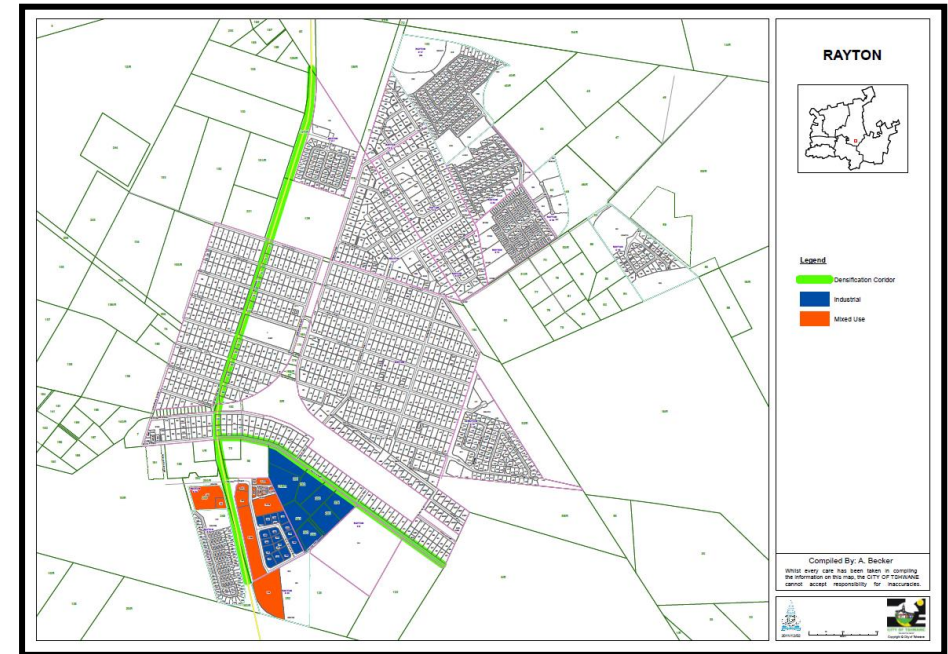
### 5.1.2 RAYTON NODE

Rayton is one of the emerging nodes within the City of Tshwane. Rayton is located 55km from the City centre and has a history of an agricultural town. The area is characterised by retail, light industries, motor workshops and low density residential developments. Rayton provides easy access to the N4 National road within 4km and provides linkages with the Bapsfontein-R21 movement system.

The provision of Engineering services within the Rayton area need improvement especially to increase electricity, sewer and water networks for future development in the area.

Densification within the town of Rayton is supported to ensure that public transport is enhanced in the area. Most of the erven in Rayton are larger (1000 m<sup>2</sup>) and infill development is possible. There is a need to promote Rayton as an agro-industrial processing area because of its location to the major routes as well as presence of land for such purposes.

The core area of Rayton is formed by the areas around intersection of South street and Nolte street, and Nolte street and R515 including Rayton Extension 24. This area should be developed as a mixed use node comprising medium to high density residential development, commercial uses, business and other uses associated with a mixed use node. The Rayton Precinct Map indicates the demarcated area.

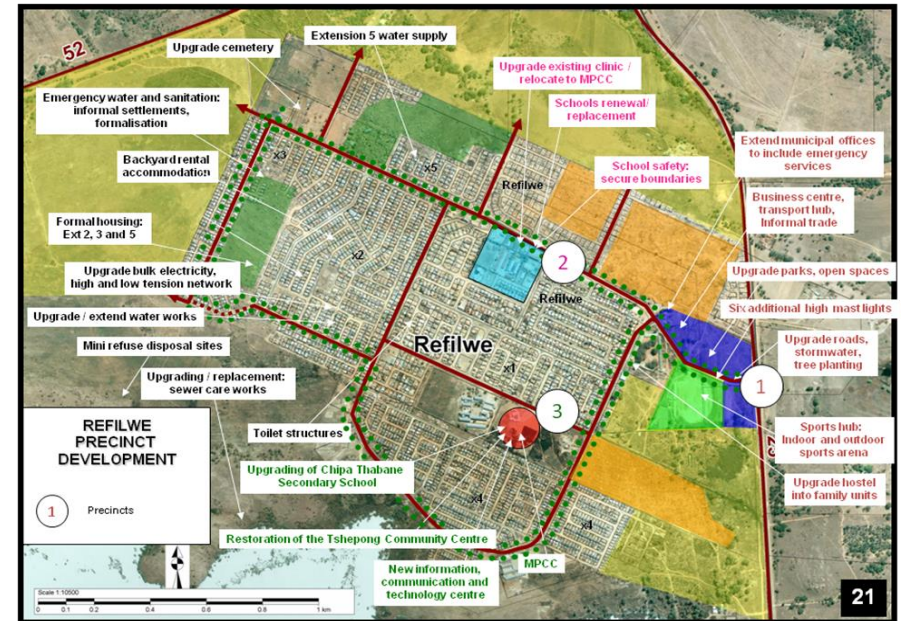


### 5.1.3 REFILWE NODE

Refilwe Township is mainly a residential node although with limited retail activities taking place in the area. The area is characterised by many informal trading (Spaza shops and illegal shops) and many residents make their monthly grocery purchases from Rayton or Cullinan.

The area has very small erven sizes (230m<sup>2</sup>-300m<sup>2</sup>) and makes it difficult for any meaningful densification to take place. However there are future opportunities for retail development at the Refilwe entrance or even to enhance the existing retail area along Rumo Drive. City of Tshwane owns a number of properties in the existing retail area adjacent to Community which could be consolidated and leased to a local developer to enhance the retail potential of the area.

One of the challenges in Refilwe is Land ownership and security of tenure. City of Tshwane owns more than 700 properties where people people currently reside and more than 65 are owned by De Beers Consolidated Mine. There is a need to transfer these properties to current occupiers in order to increase economic value of the properties but also to allow small business initiatives to take place. The Refilwe Precinct Plan indicates the desired and future development of the area.



## 5.2 REQUIRED PRECINCT PLANS (NON-PRIORITISED)

962

The following are precinct plans that are required to guide the development of specific precincts within the Region. It includes:

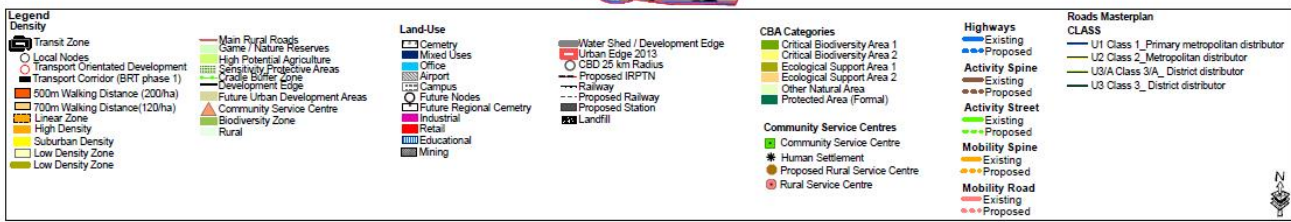
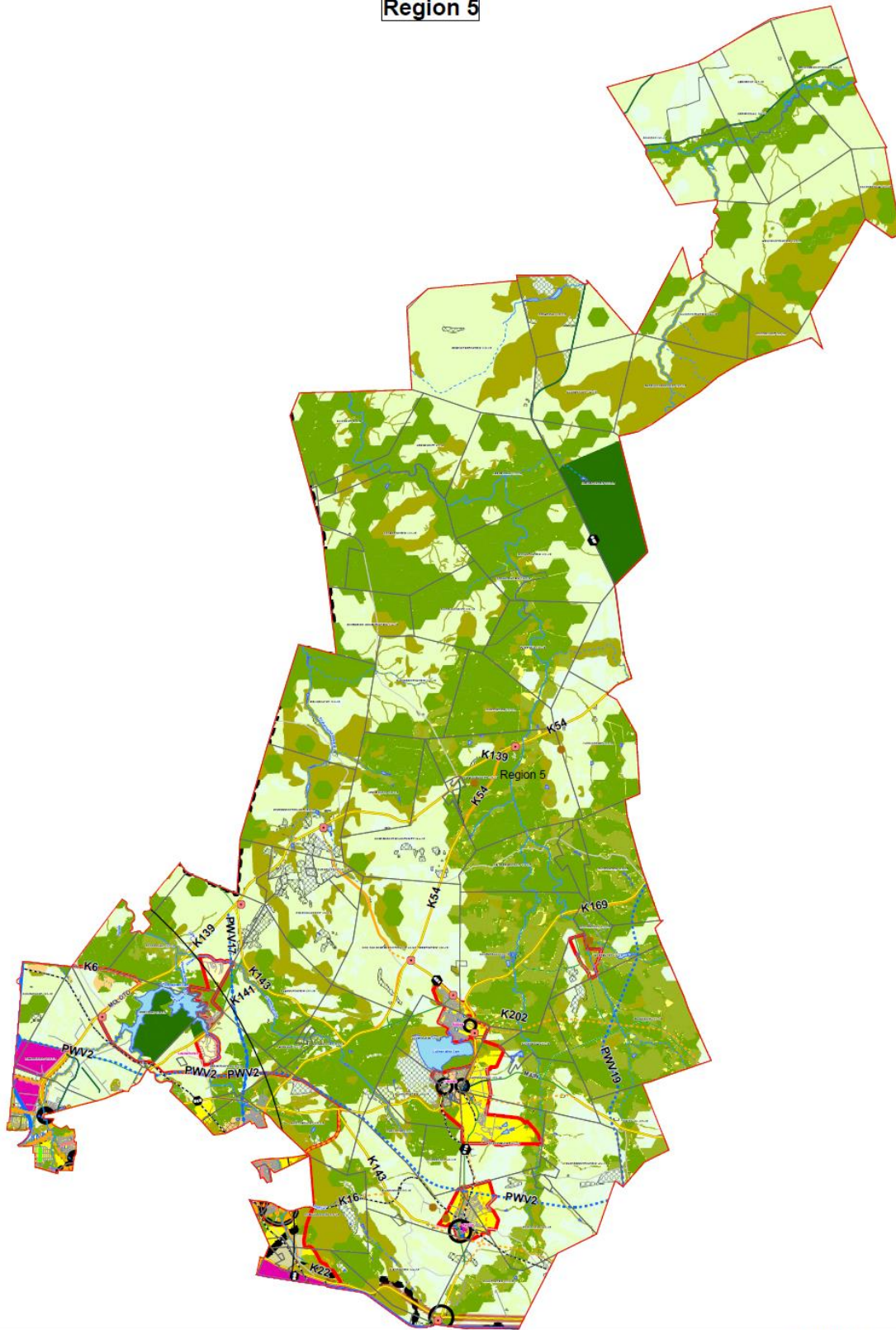
- Kameeldrift-Derdepoort area
- Gem Valley-Leeuwfontein area
- Zonderwater Heritage Precinct
- Cullinan Tourism Precinct
- Onverwagt Agri Development Strategy
- Komjekejeke Heritage precinct

### 5.3 PLANNING POLICY RATIONALISATION

Spatial Policy	Status	Approval Date	Purpose	Changes in planning Context	Proposed Future of Plan
Urban Areas Spatial Development Framework	Approved	16 April 2007	Spatial Plan	N/A	Spatial Development Framework 2012: Region 5
Rural Areas Spatial Development Framework	Approved	16 April 2007	Spatial Plan	N/A	Spatial Development Framework 2012: Region 5
Development Guidelines	Approved	16 April 2007	Land use Guidelines	N/A	Spatial Development Framework 2012: Region 5



## Region 5

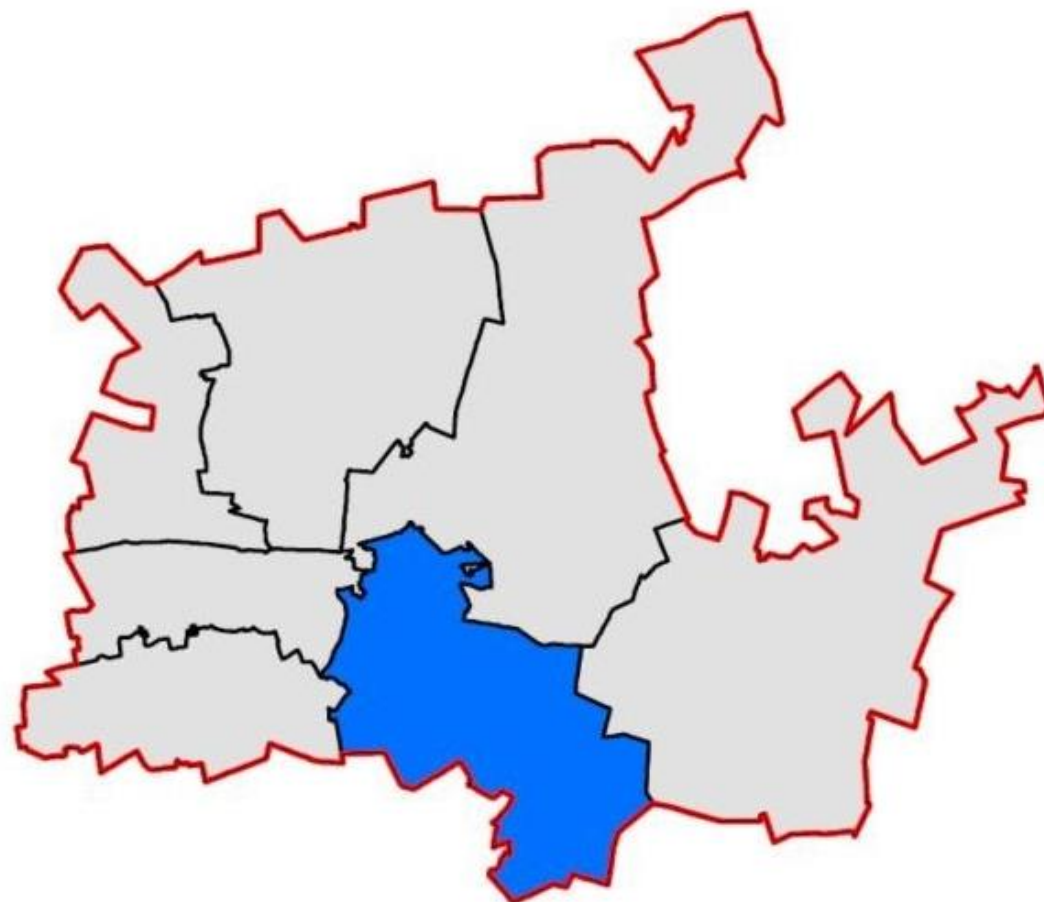




## 6. REFERENCES

- Cities Network, **Developing a Collective approach to Mixed- Use Development in Transit – Oriented Development Precincts**, June 2016.
- City of Johannesburg, **Complete Streets**, April 2013.
- City of Johannesburg, **Density Guidelines**, June 2013.
- City of Tshwane, **Comprehensive Integrated Transport Plan 2015 - 2020**, June 2016.
- City of Tshwane, **Integrated Rapid Public Transport Strategy of the City of Tshwane**, November 2012.
- City of Tshwane, **Rapid Transit (TRT): Spatial Development Policy: Densification and Intensification Guidelines**, March 2014.
- City of Tshwane, **Streetscape Design Guidelines**, August 2007.
- City of Tshwane, **Draft Streetscape Design Guidelines**, August 2013.
- City of Tshwane, **Tshwane MSDF 2012**, June 2012.
- City of Tshwane, **Tshwane RSDF 2013**, March 2014.
- Gauteng Province, **Gauteng Spatial Development Framework: 2011**.
- Gauteng Province, **Gauteng 25 Year Integrated Transport master Plan** : November 2013
- ITPD, **The Transit Orientated Development Standard**, New York, 2015.
- RSA, **National Development Plan: 2030**, National Planning Commission. 2013
- RSA, **Spatial Planning and Land Use Management Act**, 16 of 2013.
- RSA, **National Department of Agriculture, Norms and Standards for Land uses Change: 2016**
- World Bank, **Transforming Cities with Transit: Transit and Land use Integration for Sustainable urban Development**, January 2013.

## SPATIAL DEVELOPMENT FRAMEWORK 2017 REGION 6



## TABLE OF CONTENTS

<b>ABBREVIATIONS</b>	i	5.1 HERITAGE AND CULTURAL SITES	21
<b>GLOSSARY OF TERMS</b>	ii	5.2 OPEN SPACE AND CONSERVATION AREAS	21
		5.3 RURAL MANAGEMENT	23
<b>PART ONE: INTRODUCTION</b>	1	<b>PART THREE: REGIONAL ANALYSIS</b>	
1.1 BACKGROUND	1	3.1 LOCALITY	26
1.2 LEGISLATIVE FRAMEWORK	1	3.2 AREA	26
1.3 APPROACH AND METHODOLOGY	2	3.3 DEMOGRAPHIC INFO	27
1.4 THE USE OF THIS DOCUMENT	2	3.4 REGIONAL CHARACTERISTICS	29
<b>PART TWO: METROPOLITAN CONTEXT</b>	3	3.5 STRUCTURING ELEMENTS	29
2.1 NATIONAL DEVELOPMENT PLAN; 2014	4	3.6 ECONOMIC BASE	28
2.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011	4	3.7 PHYSICAL ENVIRONMENT	28
2.3 GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013	5	3.7.1 Natural Structuring Elements	31
2.4 THE SPATIAL VISION OF THE CITY	7	3.7.2 Strategic Land Uses	31
2.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK	7	3.7.3 Nodes	31
2.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY	8	3.7.4 Mixed Use Activity Areas	31
2.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN	8	3.7.5 Residential Characteristics	31
3 THE CITY STRUCTURE	10	3.7.6 Movement and Transport Systems	32
3.1 HIERARCHY OF NODES	10	3.7.6.1 Road Network and Private Transport	32
3.2 SPECIALISED ACTIVITY AREAS	12	3.7.6.2 Public Transport	33
3.3 GROWTH MANAGEMENT	12	3.7.7 Service Infrastructure	33
3.4 URBAN EDGE	13	3.8 KEY ISSUES AND S.W.O.T ANALYSIS	33
3.5 TSHWANE RETAIL STRATEGY	13	3.8.1 Strengths	33
4 MOVEMENT AND CONNECTIVITY	14	3.8.2 Weaknesses	34
4.1 URBAN FORM AND TRANSPORT INTEGRATION	15	3.8.3 Opportunities	34
4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE IS:	17	3.8.4 Threads	34
4.3 ENVIRONMENTAL STRUCTURING CONCEPT	21	3.8.5 Role and Function	34
		3.8.6 Development trends within Region 6	34
		<b>PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK</b>	
		4.1 INTRODUCTION	37
		4.2 METROPOLITAN NODES	37
		4.2.1 Menlyn Metropolitan Core	37

4.2.2	Mamelodi Urban Core	37	4.8.15	Community Service Centres	65
4.3	REGIONAL NODES / LOCAL NODES	38	4.9	OPEN SPACE AND ENVIRONMENTAL AREAS	67
4.4	JOB OPPORTUNITIES	39	4.10	SOCIAL FACILITY PLANNING	70
4.4.1	Mixed Use Areas	39			
4.4.2	Waltloo/Silverton/Samcor Park	40	<b>PART FIVE: DETAIL PRECINCT PLANS</b>		
4.5	FUNCTIONAL ROAD CLASIFICATION AND ACTIVITY MATRIX	40	5.1	EXISTING PRECINCT PLANS	71
4.5.1	Development Guidelines	40	5.1.1	Menlyn Node Plan	71
4.6	RESIDENTIAL	41	5.1.2	Rubenstein Drive Development Framework	73
4.6.1	Concentration Zones	51	5.1.3	Jacqueline Drive Spatial Development Framework	73
4.6.2	Linear Zones (Corridors and Spines)	53	5.1.5	Woodhill Emerging Node	74
4.6.3	Suburban Densification Zones	54	5.1.6	Draft Spatial Development Framework for Willow Park and Willow Brae	75
4.6.4	Low-Density Zones	54	5.1.7	Spatial Development Framework for Hazeldean Node	76
4.6.5	Rural Divisions	55	5.1.8	Spatial Development Framework for Mooikloof Node	77
4.6.6	Human Settlements	56	5.1.9	Mamelodi Emerging Core	78
4.7	MOVEMENT SYSTEMS	58	5.2	PLANNING POLICY RATIONALISATION	79
4.7.1	RSDF movement System Proposals	58			
4.7.1.1	Rail	58	<b>PART SIX: REFERENCE</b>		81
4.7.1.2	Road network	59			
4.7.1.3	Bus Rapit Transit (IRPTN System)	60			
4.8	RURAL AREA	61			
4.8.1	Major Rural Roads	61			
4.8.2	Urban Edge	61			
4.8.3	Development Edge	62			
4.8.4	Future Urban Development Areas	62			
4.8.5	Management Zones	63			
4.8.6	Agricultural High Potential Areas	63			
4.8.7	Sensitive Protected Areas/Biodiversity Zone	63			
4.8.8	Sensitive Ridge Areas	64			
4.8.9	Heritage and Cultural Protected Areas	64			
4.8.10	Tourism Potential Places/Areas	64			
4.8.11	Conservancies	64			
4.8.12	Game and Nature Reserves	64			
4.8.13	Mines and Places of Manufacturing	65			
4.8.14	Human Settlements	65			

BRT

- Bus Rapid Transit

CBD

- Central Business District

COT

- City of Tshwane

EMF

- Environmental Management Framework

GLA

- Gross Leasable Area

GSDF

- Gauteng Spatial Development Framework

GITP

- Gauteng 25-Year Integrated Transport Master Plan

IDF

- Integrated Development Framework

IDP

- Integrated Development Plan

ITP

- Integrated Transport Plan

LSDF

- Local Spatial Development framework

MSDF

- Metropolitan Spatial Development Framework

NDF

National Development Plan, Vision for 2030.

NMT

- No Motorized Transport

UP

- University of Pretoria

RSDF

- Regional Spatial Development Framework

SDF

- Spatial Development Framework

SPLUMA

- Spatial Planning and Land Use Management Act, 16 of 2013.

SPTN

- Strategic Public Transport Network

TOSF

- Tshwane Open Space Framework

ZOC

- As per CDS: Zone of Choice



## GLOSSARY OF TERMS

### ACTIVITY NODES

- Areas of concentration of mixed land uses.

### ACTIVITY SPINES

- Mobility routes connect a number of nodes or mixed use areas, serving as the main public transport channels of the region. These routes could support linear development although not necessarily continuous along its length. Higher order land uses should be accommodated in the nodes, but lower order land uses could develop in a linear fashion subject to alternative access opportunities. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes.

### ACTIVITY STREETS

- Local collector roads supporting lower order land uses in a linear fashion along its length. Direct access to land uses is provided compromising mobility for activity. Development along activity streets should be permitted in accordance with a local spatial development framework.

### CAPITAL CORE

- The Tshwane Inner city is identified as the Capital Core as it is the city's first order node amongst all metropolitan nodes. Traditionally, the inner city is also the Central Business District (CBD) of major cities. Tshwane is no different.
- Historically, the inner city was the geographic heart and centre of what is now the Tshwane area. Over time, though, due to the extension of the Tshwane boundaries, the Inner City is no longer geographically central, but still plays a very important role with regards to the concentration of retail, office and government buildings to be found in the area.
- The Capital Core must:
  - Be the focal point for housing government departments

- Be developed to a higher than average density, supporting all principles of smart growth.

### CITY OF TSHWANE METROPOLITAN MUNICIPALITY LAND USE MANAGEMENT BY-LAW

- To give effect to "Municipal Planning" as contemplated in the Constitution of the Republic of South Africa, 1996, and in so doing to lay down and consolidate processes and procedures, to facilitate and make arrangements for the implementation of land development and land development applications, spatial planning and a Land Use Scheme within the jurisdiction of the City of Tshwane, in line with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013), to provide for the processes and procedures of a Municipal Planning and Appeals Tribunal and to provide for matters incidental thereto.

### COMPACT

- Compact urban form increases efficiency in the way people can use the city and in the way the city is managed. More people live in a smaller area in a compact city and this higher density allows for efficient provision of public transport, social and other services. The opposite of a compact city is urban sprawl.

### CONCENTRATION ZONES

- The Concentration Zones are the primary focus areas for high density, medium to high-rise residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

### COT

- City of Tshwane.

#### DENSIFICATION

- Increase of residential density following the guidelines of the Densification and Compaction Strategy, May 2005.

#### EMERGING NODES

- Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

#### INDUSTRIAL

- As referred to on the framework plans includes: light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

#### INFILL

- The development of undeveloped or underdeveloped land within a developed urban area with infrastructure available.

#### INNER CITY

- An area in the City of Tshwane comprising the Pretoria Central Business District and surrounding residential areas.

#### INTENSIFICATION

- The process of intensifying activities or land use by increasing floor area, height or number of activities.

#### LIVABLE STREETS

- Liveable Streets are defined as streets for everyone that are planned, designed, and operated to enable a network of safe access for all users including pedestrians, bicyclists, and transit riders

#### LINEAR ZONES

- As per Densification and Compaction Strategy referring to activity spines and linear channels forming a lattice of movement.

#### LOWER ORDER LAND USES

- Land uses that are not usually associated with high impact on the surrounding environment and with low traffic generating characteristics.

#### METROPOLITAN NODES

- These are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the Tshwane context, Metropolitan nodes are those nodes within the City (economically) benefiting primarily from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment.
- Such localities are also where the most extensive land use rights, including densities, are likely to be supported, in line with the growth management strategy.

#### MIXED USE

- Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional ect. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. A mixed-use could refer to retail at street level, institutional on the floor above and residential on the upper floors, or only use per erf. Principles regarding retail, commercial and industrial uses / rights are

still applicable as indicated in this document. Mixed land use in an industrial area could include industry, commercial and retail uses.

#### NODES

- A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport nodes such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

#### PUBLIC TRANSPORT FACILITIES

- Including train stations, taxi and bus facilities with ancillary uses.

#### SPLUMA

- Spatial Planning and Land Use Management Act, 16 of 2013.

#### SUBURBAN DENSIFICATION

- As per Densification and Compaction Strategy: Residential densification in areas that are not located in concentration zones of along linear development spines.

#### SUSTAINABLE DEVELOPMENT

- Development that has integrated social, economic and environmental factors into planning, implementation and decision-making, so as to ensure that it serves present and future generations.(In terms of SPLUMA Objectives)

#### SUSTAINABLE HUMAN SETTLEMENTS

- The term 'sustainable human settlement' refers to a spatial concept
- That has two areas of emphasis: 1) human 2) sustainable. In terms of SPLUMA Principles)

"The human-centred approach emphasises that a central purpose of planning is to ensure that the developmental needs and activities of people living in settlements are catered for and, in particular, that Opportunities for people to achieve their full potential are maximised through their own efforts. This approach, rather than being purely cost- or technology-driven, is people-driven and democratic". It makes such settlements socially, politically and economically sustainable. But there is also the dimension of environmental sustainability.

#### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)

- Transit-oriented development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (train station, metro station, tram stop, or bus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs generally are located within a radius of one-quarter to one-half mile (500 to 700 m) from a transit stop, as this is considered to be an appropriate scale for pedestrians.

#### URBAN CORES

- Former township areas were developed as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme Grant (NDPG) is a nationally funded programme that aims to address the improved quality of environment in urban cores.

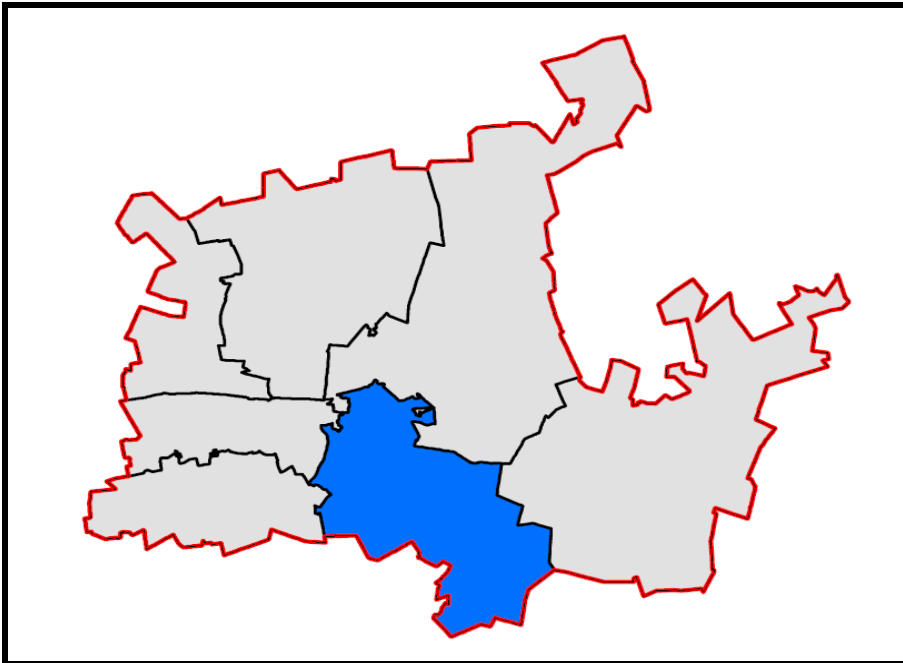
## 1. INTRODUCTION

### 1.1 BACKGROUND

The City of Tshwane (COT) embarked on processes to compile seven Regional Spatial Development Frameworks (RSDF's) for the administrative planning regions of the metropolitan area in 2011.

The RSDF's needed to be inter-linked and also support the Tshwane Metropolitan Spatial Development Framework (MSDF) of 2017 as well as the Tshwane City Development Strategy (CDS), Tshwane Densification and Compaction Strategy (2005) and Tshwane Open Space Framework.

This RSDF for Region 6 was therefore prepared within the context of the MSDF, the City Development Strategy and in support of the other RSDF's.



### 1.2 LEGISLATIVE FRAMEWORK

- The Municipal Systems Act, 2000 (Act 32 of 2000) determines that a municipality must adopt a framework for integrated development in its area in the form of an Integrated Development Plan (IDP) (Section 27).
- A Spatial Development Framework, which guides and informs all development forms part of the IDP (Section 35 (2)).
- The Gauteng Planning and Development Act, 2003 (Act 3 of 2003) determines that municipalities must formulate spatial development frameworks for their areas (Section 31 and 32).
- The content of these plans “shall be in the form of maps or a map together with explanatory report of the desired spatial form of the municipality”.

A Spatial Development Framework must:

- Indicate where public and private development infrastructure investment should take place.
- Indicate desired development and land use patterns for different areas.
- Indicate where development of particular land uses should be discouraged or restricted.
- Provide broad indication of the areas where priority spending should take place.
- Shall provide guidelines for development and land use decision-making by the municipality.

This Regional Spatial Development Framework was prepared in accordance with the above mentioned provisions.

### 1.3 APPROACH AND METHODOLOGY

The approach to the preparation of the RSDF was based on the following approved policy and plans:

- National Development Plan; 2014
- Gauteng Spatial Development Framework: 2011.
- Gauteng 25- Year integrated Transport Master Plan : 2013
- The MSDF objectives, vision and supporting strategies as well as development issues were used to inform the role and function of the region. (MSDF 2017).
- City of Tshwane, Rapid Transit (TRT): Spatial Development Policy: Densification and Intensification Guidelines, 2014 .
- The City of Tshwane Comprehensive Integrated Transport Plan: 2016
- The City of Tshwane Bioregional Plan: 2016.

The framework was also based on best practices applied internationally on the development of MSDF / RSDF. See references used at the end of the document in the compilation of the framework. Further this framework has been compiled inter alia in terms of the relevant provincial legislation and the Spatial Planning and Land Use Management Act, 16 of 2013.

The RSDF 2017 : Region 6 was prepared in accordance with the following mentioned principles.

- Indicate where densification should take place and promote economic and social inclusion. (SPLUMA , Objectives and Principles 7(a))
- Indicate how urban regeneration should take place in the Region in order to stimulate land markets (SPLUMA, Objectives and Principles 7(a)).
- Indicate where public and private development infrastructure investment should take place. (SPLUMA , Objectives and Principles 7(a))
- Indicate desired development and land use patterns in the Region 6 in order to achieve mixed income housing, community, educational and job opportunities that support the Bus Rapid Transit system. SPLUMA , Objectives and Principles 7(a))
- Provide for the opportunity to walk and cycle in the Region and move away from car orientated planning.

- Provide broad indication of the areas where priority spending should take place in the Region and what the impact on services will be. (SPLUMA , Objectives and Principles 7(a))
- Shall provide guidelines for development and land use decision-making by the municipality in the Region 6.

This framework obtains its guides, objectives and principles from the relevant National, Provincial and Local Planning Policies as prescribed by the Spatial Planning and Land Use Management Act, 16 of 2013. In the following section the different policies and guidelines are discussed that are applicable to corridor planning.

### 1.4 THE USE OF THIS DOCUMENT

As a point of departure in terms of the governance model adopted by Council, it should be understood that no decision on site specific development application can have the effect of materially amending the RSDF's or undermine the IDP with reference to section 35 of the MSA.

The burden on a local authority in the preparation of the IDP and the SDF's with regard to public participation limits the power of a local authority to, without proper consideration amend, undermine or redirect policy. The citizenry within the jurisdiction of the City of Tshwane has the right to be able to rely on the content of the IDP and SDF's and any amendment thereto should not be taken lightly.

In particular, no development proposal may undermine the budgetary provisions contained in the IDP read with the SDF. Should such development proposals have merit, they should be tested against the overall objectives of the policy documentation and formally incorporated to ensure integrated, funded and sustainable development takes place, that reach the objectives set out in the policy documents. The RSDF's indicate where and how discretionary powers are granted to deal with applications on merit. A merit deviation should be based on **specific criteria** or **threshold requirements**, which requirements shall in the sole opinion of the local authority be complied with, in order to deviate or amend the RSDF or any component thereof. Keeping in mind that if it is so material as to impact on the overall objectives of the SDF's or IDP, that it can only be formally amended by the legislative body of Council, with public participation.



## MAPS AND PRINCIPLES

The different principles as indicated in Chapter 4 must be interpreted per Map and against the principles as specified in the document. For Example density applications will be evaluated according to the density map and accompanying principles as specified in chapter 4. Alternative land uses and activities will be evaluated according to the movement and activity map and accompanying principles. The composite map at the end of the document must only be regarded as a schematic representation of the principles.

## INFRASTRUCTURE

Development proposals, whether in line with these documents or on merit, should only be supported if infrastructure to the satisfaction of the local authority can be provided in line with the overall IDP. This should include the provision of infrastructure by developers that may have an impact on the operational budget of Council. The availability of infrastructure shall not be regarded as sufficient support for a development proposal. The prioritisation and provision of infrastructure is within the sole discretion of the local authority and shall be considered and evaluated based on accumulative impact and prioritisation of resources.

## TRANSITIONAL ARRANGEMENTS

In order for the City of Tshwane to ensure that pending applications that were submitted in line with the rescinded MSDF/SDF's or RSDF's to be substituted by the reviewed MSDF and RSDF's, to be effectively and efficiently evaluated against policy the following transitional measures shall apply:

Any development application which relied on the provisions of the MSDF's or RSDF's in support of consideration of the said applications, that are pending before the City of Tshwane at the time of the adoption by Council of the reviewed MSDF's and RSDF's, shall be dealt with as if these revised documents have not been adopted.

These pending development applications shall be finalised based on the policy provisions contained the rescinded MSDF's and RSDF's or any component of these documents; provided that where applications are pending before the local authority and the reviewed MSDF's and RSDF's are

in support of an application that the local authority in their sole discretion and interpretation of whether in support or not, the application may be considered against the reviewed MSDF's and RSDF's. This provision shall not be applicable if the application by evaluation against the reviewed MSDF's and RSDF's shall have the result of negatively impacting on the rights of an applicant.

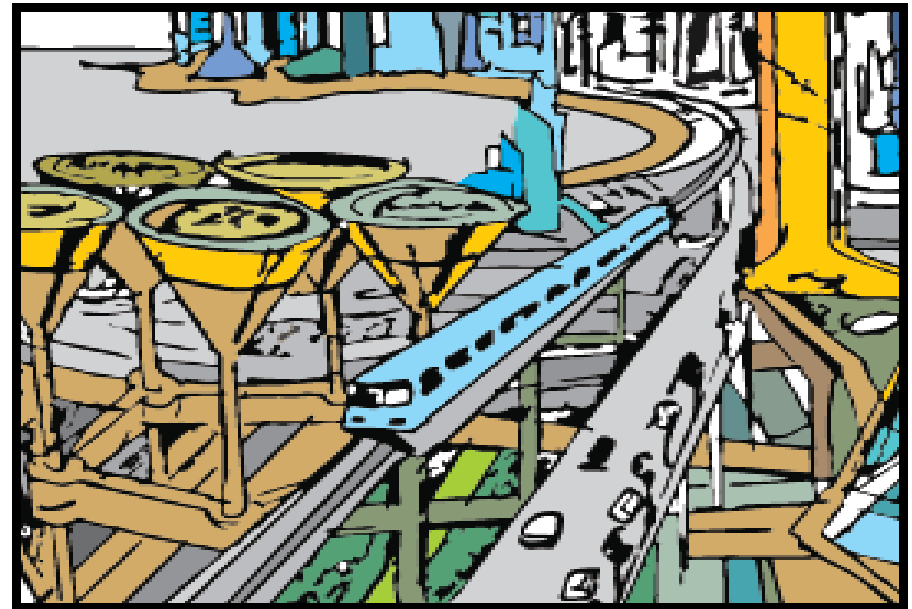
The RSDF is not the sole mechanism in determining the suitability of any potential change in land use, but should be used in conjunction with requirements as may be determined by infrastructure and other relevant aspects that may not be contained in the RSDF.

## 2. PART 2: METROPOLITAN CONTEXT

### 2.1 NATIONAL DEVELOPMENT PLAN; VISION FOR 2030: 2014

The overarching principles for spatial development in terms of the National Development Plan (pg. 246) is that all spatial development should conform to the following principles:

- **Spatial justice** – Unfair allocation of public resources between areas must be reversed and the confining of particular groups to limited space must be abandoned. The **increasing of urban population density** while improving the liveability of the cities, providing affordable public transport, it is seen as a complementary strategies to this principle (pg. 16). Transportation networks are seen as the key to spatial transformation (pg.238) and the accommodation of diverse household types is encouraged. (pg. 254).
- **Spatial sustainability** – Sustainable patterns of consumption and production must be supported and ways for living that do not damage the natural environment. **Walkable neighbourhoods**, for example, reduce the need to travel and limit greenhouse gas emissions. In terms of this principle a clear strategy for densification of cities through land use-use planning is proposed (pg. 33).
- **Spatial resilience** – Reduce the vulnerability to environmental degradation, resource scarcity and climate shocks. Ecological systems should be protected and replenished and support the transition to environmental sustainability (pg. 256)
- **Spatial quality** – The aesthetic and functional features of housing and the built environment need to be improved to create **more liveable, vibrant and valued places**. Prioritising public transport and the **discouragement of private car** users is seen as one of the strategies in terms of this principle (pg.164).
- **Spatial efficiency** – Productive activity and **job creation must be supported**. Efficient commuting patterns and circulation of goods and services must be encouraged. Further procedures must not impose unnecessary costs on development. Unlocking development potential is seen as part of the spatial vision of the development plan (pg. 247)



## 2.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011.

**G2055** initiative is an initiative aimed at preparing the Gauteng City Region for a population of approximately 28 million people by 2055. The G2055 vision is for Gauteng to have a strong knowledge capital, be the hub of innovation to Africa, and be a liveable, prosperous, competitive, equitable, accessible and sustainable City region. The initiative is spatially addressed in the Gauteng Spatial Development Framework (approved in February 2011).

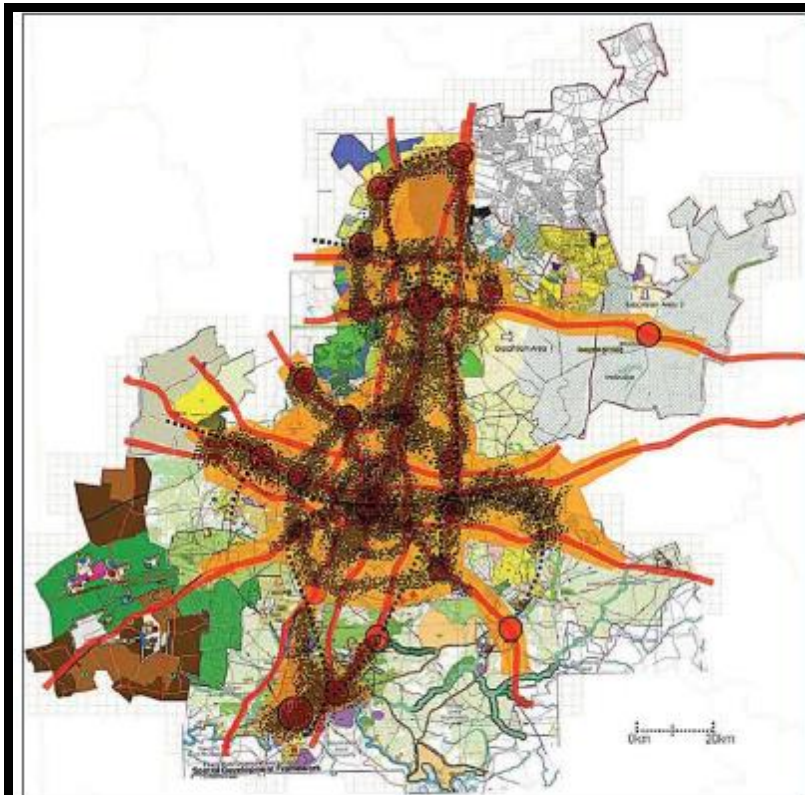


Figure 2-17: Proposed consolidation of urban development in Gauteng Province

Source: Gauteng Spatial Development Framework: 2011

The Gauteng Spatial Development Framework (GSDF) provides a common future spatial structure for the Gauteng Province and is clear on the fact that growth must be structured and directed (pg. 10).

The primary structuring elements identified within the GSDF are those of:

- urban mixed-use activity nodes
- open space and green system
- public transit and movement routes
- urban corridors and activity spines

Given the comprehensive system of discernible urban corridors and public transport potential within Gauteng, consolidation of **urban development should be concentrated around existing primary urban centres, urban nodes, and urban corridors** and along urban activity spines. (pg.52)

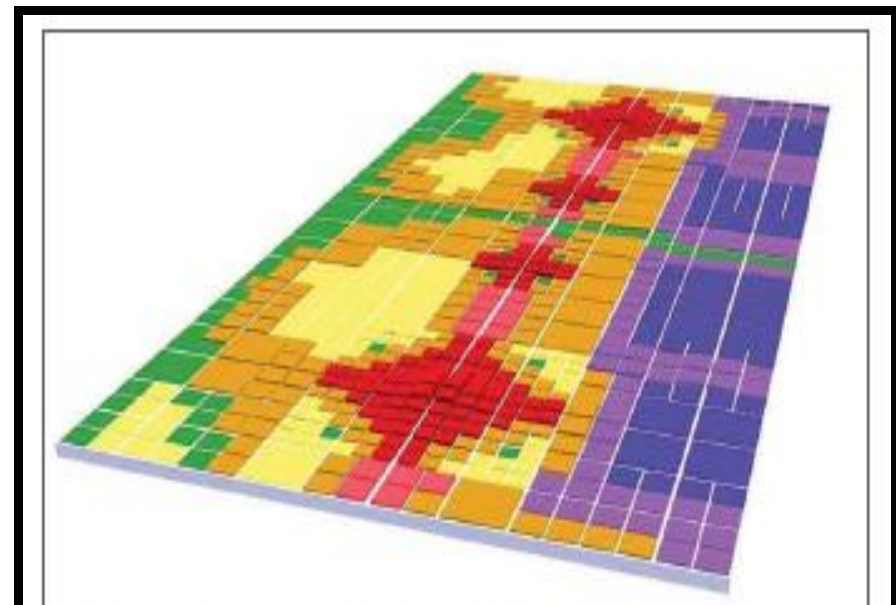


Figure A.2.7: Perspective model of a section of corridor

Source: Gauteng Spatial Development Framework: 2011

In terms of corridor development the GSDF seeks to achieve the following:

- The containment of urban sprawl by way of growth management that seeks to advance compaction, **residential densification**, and in-fill development, and mixed land uses within the existing urban fabric will promote walking and cycling (pg. 65).
- the social and **economic integration** of disadvantaged communities into the urban system, particularly those on the urban periphery;
- the establishment of a hierarchy of nodes coupled with the improvement of **linkages and connectivity** between these nodes and areas of economic opportunity (pg. 86);
- **land use-public transport integration** through nodal and corridor development (pg.96)
- the promotion of viable public transport systems and **reduction of reliance on private mobility** with strong emphasis on **densification along the priority public transport routes**, especially rail and BRT routes which form the basis of the IRPTN movement system (pg. 83);
- public transport routes become the priority areas for **densification** and infill development;

Evident from these principles is the strong emphasis on public transport becoming the basis of the 'Movement system' in the province, and urban corridors, activity spines and public transport routes. Creating the framework for future processes of **densification** and intensification, including Transit Oriented Development (TOD) comprising mixed uses around road and rail based public transport facilities (pg. 136).

### 2.3. GAUTENG PROVINCE, GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013

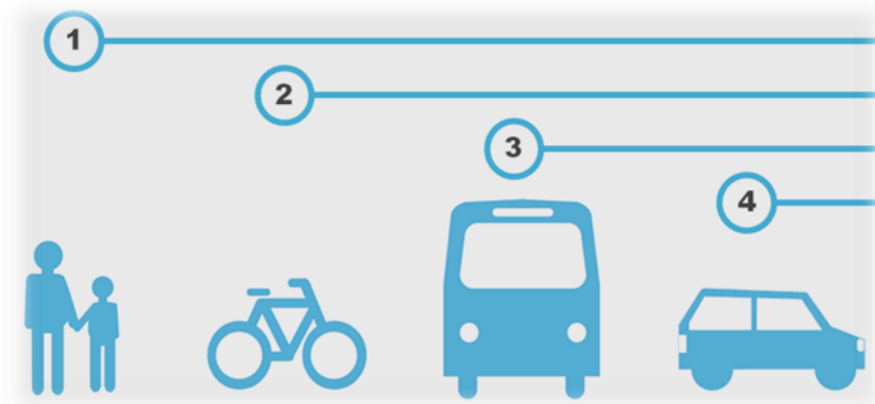
The plan proposes a radical paradigm shift in spatial and transport planning. It serves as a point of departure from apartheid spatial planning, land use and mobility patterns and ushers in an innovative way of structuring our future societal development. It serves as a road map for more detailed planning, particularly in public transport, land use, human resource development and socio-economic development. It is underpinned by founding principles such as economic beneficiation; doing things in a smart and sustainable manner; and integrating transport networks, modes and services interventions" have been identified of which the following two clusters relate to BRT corridor planning (pg.23)

- Land Use Development  
Subsidised housing provision within urban core areas  
Land use densification in support of public transport;
- Strategic Public Transport Network  
Mainstreaming non-motorised transport (NMT)  
Reinforcing passenger rail network as the backbone of the system  
Extending the integrated rapid and road-based public transport networks

The Promote NMT as part of a sustainable transport system, e.g. include NMT (walking and cycling) as a feeder system to all public transport systems. Redesigning and/or creating a built environment (urban and rural) to inclusively accommodate NMT users according to universal design principles as may be appropriate in terms of social and economic objectives (pg.71).



**Diagrammatic representation of the modal hierarchy approach depicting an operational Category that favours the NMT modes**



Source: Gauteng 25 Year integrated Transport master Plan: 2013

Extensive land use densification and more efficient land use and transportation integration around the provincial public transport network will make a significant contribution towards enhancing the viability of public transport in the province. This would require large scale processes of infill development, densification and redevelopment of older urban areas in the province and the containment of urban sprawl by way of a comprehensive urban development boundary for the Gauteng City Region. Developing spatial compacts which promote processes of densification, intensification and infill development within the existing urban footprint of towns and cities. (pg. 136).

Municipalities should seek to achieve the following density guidelines in various functional areas:

- High Density: 80 units per hectare and higher within 1 kilometre from the provincial IRPTN network and activity nodes served by this network;
- Medium Density: 30 to 79 units per hectare within 1 kilometre from the remaining provincial

In terms of the Provincial Transport Master Plan all municipalities in Gauteng should identifying priority nodes/areas along these corridors and **compile detailed Precinct Plans** for these areas (pg.32). The plan should be based on the following:

- Promote processes of densification and infill development.
- Reserving a percentage of spare bulk engineering services capacity to accommodate development along priority public transport corridors.
- Relaxing parking requirements for higher density developments along public transport Corridors.
- Facilitating and promoting non-motorised transport within the priority public corridor development areas by way of dedicated pedestrian and cycling lanes.
- Charging users for parking directly as opposed to hiding the true cost of parking in increased rent or tax subsidies.
- Improving public transport infrastructure significantly and subsidizing public transport costs.
- Road space reallocation aiming to re-balance provision between private cars and more sustainable modes.

## 2.4 THE SPATIAL VISION OF THE CITY

The Spatial Vision of the City of Tshwane is to conduct integrated planning, maximising on spatial efficiencies for optimal service delivery.

- A Spatially Efficient Capital City that is Sustainable, Competitive and Resilient:
- Sustainability: Optimising the use of land through densification, infill and consolidation, resulting in a city with spatially integrated equal opportunities, correcting spatial imbalances, creating sustainable settlements and advancing social equity.



- **Competitiveness:** Instilling investor confidence by ensuring a well-managed quality built environment through enforcement of relevant legislation, maintenance and management of infrastructure and strategic investment in infrastructure focus areas targeting broad-based economic growth.
- **Resilience:** Being innovative and adaptable, whilst maximizing spatial opportunities and in turn maximizing economic growth opportunities through strategic investment decisions.

## 2.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK. (2017)

The MSDF represents the spatial interpretation of desired growth and development directions for the City. It spatially focuses economic and infrastructure development and gives spatial expression to the development plans above (CDS and IDP), both for the long-term and the medium term.

The purpose of a metropolitan spatial framework for the city is to provide a spatial representation of the city vision and to be a tool to integrate all aspects of spatial (physical) planning such as land use planning; planning for pedestrian movement vehicular and other movement patterns; planning regarding buildings and built-up areas; planning of open space systems; planning of roads and other service infrastructure; as well as to guide all decision-making processes regarding spatial (physical) development.

It is the intention of the MSDF to restructure our fragmented, inequitable and inefficient urban form to create a more equitable, efficient and environmentally and financially sustainable urban dispensation in line with current legislation and policy.

The compaction and functional integration of the city are normative directives from national level, and implies:

- higher density urban development,
- greater mixing of compatible land uses and
- focussed concentration of high-density residential land uses and intensification of non-residential land uses in nodes,

around transit stations (such as the Gautrain, BRT, Rail and other formalised intermodal transport facilities).

## 2.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY (APPROVED 21 NOVEMBER 2012)

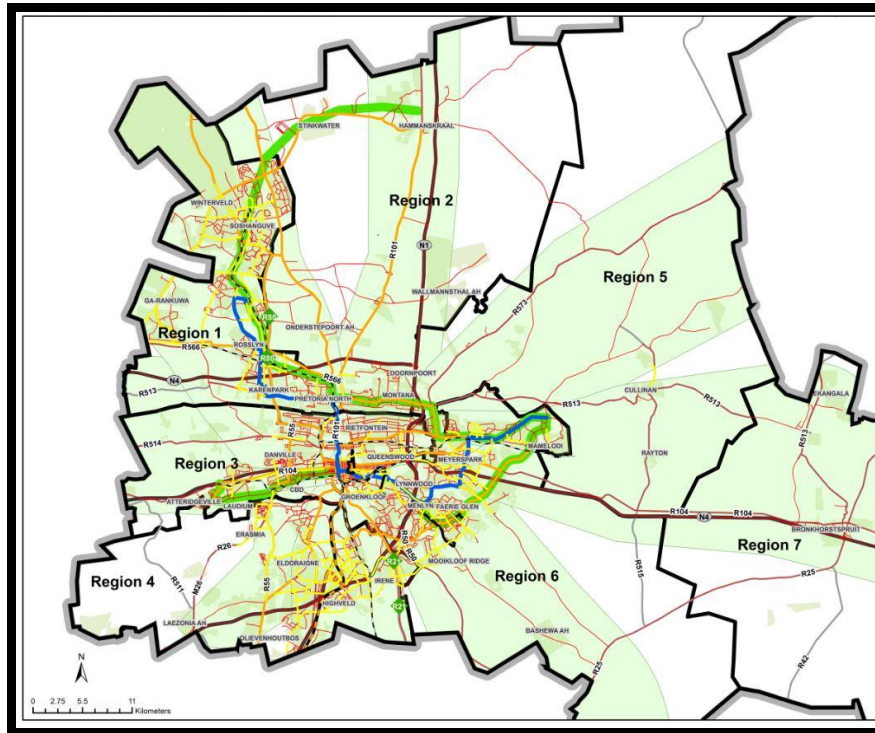
The purpose of the Policy is to provide the City with Operational guidelines for the IRPTN network. The document also provides guidelines in terms of the preparation of planning for IRPTN corridors. The key characteristics of strategy include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 500 - 900 metres of a transit station
- Reduced parking ratios for private cars.

## 2.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN (CITP) (APPROVED 6 JUNE 2016)

The Comprehensive Integrated Transport Plan set out the transport goals and objectives for the City that are aligned with the City's mission and are the targets which the City aims to achieve:

- Plan and develop a transport system that improves accessibility and mobility whilst **enhancing social inclusion**;
- Provide a fully integrated public transport system;
- Develop a transport system that drives economic development;
- Improve the safety and security of the transport system;
- Develop a transport system that reflects the image of the city;
- Develop an efficient, effective, development orientated public transport system and **integrates land use and public transport plans**;
- Develop a transport system that is environmentally sustainable.



The CIP is built on the following five key pillars. A few policies and strategies are provided for each pillar as a means of illustration:

- I. Sustainable transport:
  - Provide a transport system with low negative environmental costs yet high positive social value, which supports resource efficient economic development.
- II. Public-transport orientated:
  - **Prioritising public transport and Non-Motorised Transport (walking and cycling) over private transport;**
  - Provide public transport access to all residents, including tourists and visitors

- **Landuse to support and promote public transport** e.g. linking economic nodes with public transport, **increase land-use densities along routes** and around modal transfer facilities.
- III. Integrated transport:
    - Integration of land-use with transport, e.g. **densification along public transport corridors;**
    - Integrated planning and implementation between City of Tshwane departments, as well as between the City and other national and provincial authorities.
  - IV. Transport in support of a Smart City:
    - Affordability and accessibility of technology e.g. use of electronic communication connections for transport, safety and security (urban traffic control, passenger information, CCTV cameras, etc.);
    - Being “smart” by using scarce resources more effectively and through the application of suitable technology e.g. automatic fare collection using smart cards;
    - Provide modern public transport modes e.g. BRT, LRT, Gautrain.
  - V. People-friendly:
    - **Social inclusion, with an emphasis on access**, through the availability of public transport, to opportunities and services;
    - Provide affordable, easy to use, safe and secure public transport, including universal access and **facilities for walking and cycling.**

### 3 THE CITY STRUCTURE

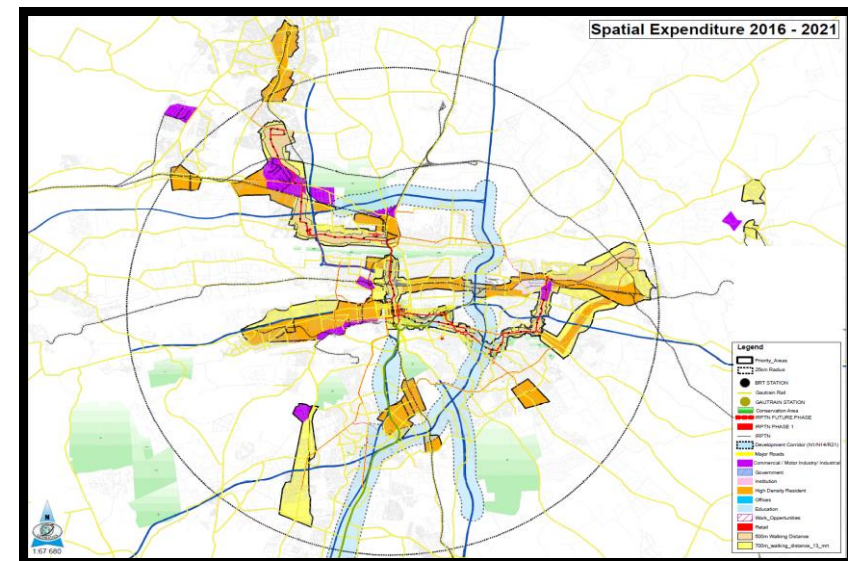
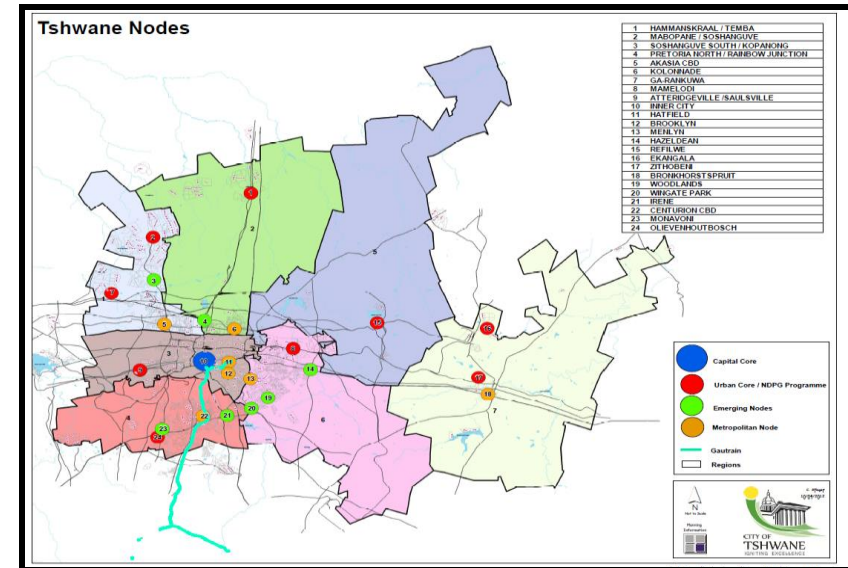
The CoT covers an area of 6260 km<sup>2</sup> and is the result of an amalgamation of the previous City of Tshwane, which was established in December 2000, and the three Metsweding Municipalities (Nokeng tsa Temane Local Municipality, Kungwini Local Municipality, Metsweding District Municipality), found directly east and south east of the previous City of Tshwane. The City of Tshwane (CoT), found within the Gauteng Province, is bordered by Limpopo to the north, Mpumalanga to the east, the

Ekurhuleni and City of Johannesburg Metropolitan Municipalities to the south and North West to the west. With Gauteng being at a total area of 16 548 km<sup>2</sup>, Tshwane, at 6260 km<sup>2</sup>, covers approximately 39% of the entire province.

Tshwane consists of 7 planning regions each with their own unique characteristics.

### 3.1 HIERARCHY OF NODES

Understanding that the current needs far outweigh the resources, it is important that the City focuses on the opportunities that exist for exponential growth and investment in the long term. These opportunities will be determined within the spatial vision by indicating where growth will occur in transport, housing, energy, water, recreation, education, health infrastructure and services. As explained by the smart growth concept. The spatial plan will promote efficient and effective resource allocation, ensuring that resources such as infrastructure are delivered in the right place and at the right time. This spatial plan also provides a sense of certainty for the future, and thus, investor confidence.



The key issue is that nodes within the city do not compete but complement and support each other so that the synergies between them maximise the potential of the City as a whole.

An important distinction is made between four nodal typologies i.e.

**Metropolitan Nodes / TOD** - these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Metropolitan nodes are those nodes within the City benefiting from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment. Such localities are also where the most extensive land use rights, including densities, are likely to be supported, also in line with the growth management strategy.

**Urban Cores**- former township area were as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme (NDPG) is a lead City programme and the main instrument 'township renewal'. Zithobeni, Ekangala and Refilwe are presented as Urban Cores.

**Emerging nodes**- over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the *potential* for greater development is clear. Identifying future urban areas also

provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Cullinan is presented as Emerging nodes.

### 3.2 SPECIALISED ACTIVITY AREAS

There are nodes in the metropolitan area that are characterised by largely mono-functional land uses taking up large, concentrated and defined space. The character of the areas ranges from industrial to high technology smart industries, medical facilities, educational, research and conservation facilities. It is important to acknowledge these specialised activity areas not just in terms of their scale, but because of their sphere of influence in terms of generating movement, opportunities and linkages with other areas. These linkages do not only refer to physical linkages, but also to "connectivity" in a broader sense, such as between institutions of learning and research.

The Blue IQ initiative of the Gauteng Provincial government contributes significantly towards the specialised activity areas in Tshwane. Blue IQ aims to deliver strategic economic infrastructure to catalyse sustainable economic growth and to indirectly contribute to job creation; to influence the composition of exports, and influence the diversification of Gauteng's GGP. The Blue IQ initiative focuses on four growth areas:

- Business
- High value-added Manufacturing (high value-add)
- Logistics
- Information and Communication Technology (ICT)
- Tourism and conservation



### 3.3 GROWTH MANAGEMENT

Growth management is a spatial concept that encompasses all aspects that ensure efficient, optimal and sustainable development of the physical environment. A key principle of this concept is smart growth. The smart growth principle guides development such that resources and services are provided in such a manner that they meet the demands of the affected population over a long-term period.

The role of nodes within the growth management concept is key. Nodes are those parts of the city where development should be focused. The widest variety of services and opportunities should be provided at nodal points, at degrees relative to their nodal status. The costs of urban sprawl and associated low densities are undeniable. Due to the limitation that development can be subjected to through the inability to provide bulk infrastructure, it is imperative that available infrastructure within the nodes are used optimally. This requires densification and intensification of land uses through compaction and infill developments. The maximisation of urban management within the nodes requires that these areas are specifically delineated within the greater developable areas for optimal growth.

The Compaction and Densification Strategy that was approved by the Council contains proposals for densification of the metropolitan area, which have local implications for each of the planning regions. The interpretation of the densification strategy for every region required special attention in the preparation of the RSDF 2017.

The strategy contains proposals for four key density zones:

- Concentration zones (high density / transit zones).
- Linear Zones i.e. corridors and spines (medium density).
- Suburban Densification (low to medium densities).

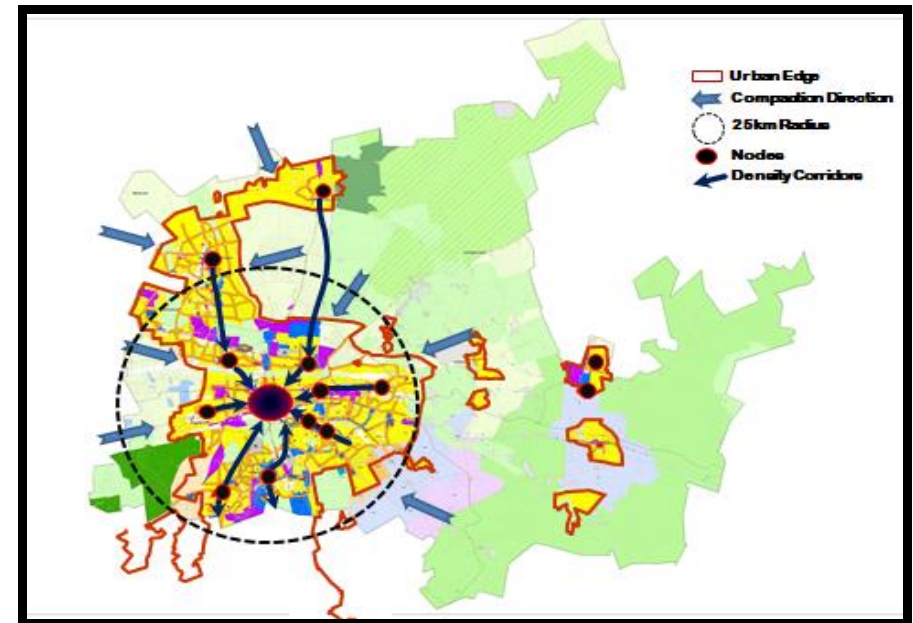
Densification and infill are sound urban development principles to pursue, but caution should be issued that most existing developed areas were not planned to accommodate higher densities and that in general the present road infrastructure cannot accommodate the additional traffic that densification implies. Densification should therefore be approached

holistically striving to also support a better public transportation system as a dual development process.

Densification is necessary for a number of reasons but most importantly it should support the provision of all urban services as best as possible.

Looking at the city from a metropolitan perspective ideally, areas with higher densities should be in the following localities:

- As close as possible to the CBD.
- Close to metropolitan core areas and services.
- In the proximity of areas with job opportunities.
- Close to public transportation facilities (major road and railway facilities).





These delineations extend to the containment of areas where development is permissible to areas where little or no development is permissible- such as environmentally sensitive or conservation areas.

### 3.4 URBAN EDGE

One tool for providing such delineations as discussed above is the urban edge. The urban edge will contribute to the achievement of the strategic objectives by conserving valuable environmental areas which would otherwise be compromised by development and promoting the use of existing infrastructure through redevelopment, infill development and densification within the edge thus achieving development that is sustainable. The urban edge also encourages the agglomeration of economies within the edge, encouraging scattered secondary or emerging nodes to develop into consolidated primary nodes as opposed to leapfrog development. The edge also ensures the protection of land- an exhaustible resource- by encouraging Brownfield developments instead of Greenfield developments.

### 3.5 TSHWANE RETAIL STRATEGY

A Tshwane Retail Strategy was formulated to guide decision-making on the development and management of retail nodes for the city.

Retail development should balance the needs of the retail sector with the needs of communities, urban functionality and sustainable development and should make a positive contribution to the overall urban environment. The local authority will take a more facilitative approach toward retail developments, provided that the actual development is in line with and support the urban objectives and contribute to a more functional, equitable, convenient and attractive metropolitan environment. Retail development should therefore be approached holistically, looking at the economic, social and environmental aspects.

The principles that underlay the approach taken in retail developments in Tshwane can be summarised as follows:

- To allow market forces and the free economy to determine the trend and tempo of retail development within the parameters set by the Tshwane Retail Policy.
- The desirability of a retail facility will be influenced by the broader area and the specific site as well as the degree to which the retail development contribute to the enhancement of the overall environment and the achievement of metropolitan development goals, as set out in the MSDF.
- Retail developments must be sensitive towards its location and surrounding environment, and be designed and sited in such a way that it contributes to the overall quality of the environment and not detract from it. A number of qualitative aspects will therefore have to be considered when evaluating retail applications, such as urban design, landscaping, public transport, interfaces etc.
- Retail applications and the evaluation thereof have to take consideration of the local context, i.e. the same guidelines and criteria do not apply uniformly to all parts of the metropolitan area.

Because of the fact that Tshwane comprises a large number of diverse areas, each with its own history, level of maturity, growth, population characteristics etc., it would be unwise to have a singular approach to retail development as a land use.

For this reason, a package of spatial strategies has been developed, that aim to address the relationship between specific contextual circumstances and future retail potential. These strategies should be interpreted more on local level, and are reflected in the Regional Spatial Development Frameworks.

### 3.6 RETAIL IN URBAN CORES

It is important to look at the retail development within urban cores relative other parts of the city in context. The retail developments in urban cores are not developed to the same level as in other parts of the city due to the inequitable development policies of the past. Nonetheless, these tables reflect that retail activity does serve as an economic activity within urban cores, albeit not to the same extent as in the metropolitan cores which have a long history of favourable development policies.

Within the current context of the city's development policies where equal opportunity is promoted, it is also important to note that retail development, as with many other economic activities, is largely a function of the private sector. The private sector is market-driven, which means that it responds to demand and consumer characteristic. At the same time, the consumer will seek out very specific retail typologies depending on their specific characteristics as a consumer. This supply-demand relationship between developer and consumer will remain a permanent state of affairs. At present, the extent of retail development has largely catered for the consumer group mostly found within urban cores. Previously, due to a lack of private transport and expensive public transport, low-income earners were compelled to source their needs from small localised township retailers. Lower priced goods available at township shopping centres or establishments offered not only the variety of goods available, but also allowed goods and services at more affordable prices.

But the population profiles throughout the city are changing as it becomes more integrated spatially, socially and economically. These new population dynamics require that access is given to the upwardly mobile of the former township areas so that spending within the retail arena or urban cores can be directed inward to contribute towards further developing the urban cores. Those that move up the social and income ladder that previously preferred to shop outside townships in upmarket malls (known as 'outshopping') may to a large extent start redirecting their expenditure to township malls if upmarket retail developments are increasingly brought into the urban cores.

The importance of increased, high quality retail development within urban cores is thus two-fold:

- Equitable access to retail opportunities
- Economic stimulation by redirecting spending that might otherwise leave the urban core back towards the core to increase development

While retail development is driven by the private sector, the city has a role towards facilitating the ease with which developers invest in the urban cores. This especially relates to service infrastructure and supporting development policies. Through the NDPG programme, public initiatives will support private funding within urban core areas.

Township/Catchment Area	Node/Precinct
Mamelodi/Nellmapius	1. Eerste Fabrieke Station Node
	2. Solomon Mahlangu Precinct (Denneboom Station)
	3. T-Section Node
Atteridgeville	4. Saulsville Station Node (includes: Saulsville Station, Atteridgeville Station, CBD and resorts)
Mabopane/Soshanguve	5. Mabopane Station
	6. Soshanguve South x14 (Klip-kruisfontein)
Hammanskraal/Temba	7. Hammanskraal/Temba Node
Olievenhoubosch/Monavoni	8. Olievenhoutbosch Node
Refilwe	9. To be determined
Zithobeni	10. To be determined
Ekgangala	11. To be determined
<b>Node being considered for future incorporation</b>	
Mabopane/Soshanguve	Garankuwa Node

#### 4. MOVEMENT AND CONNECTIVITY

Movement of people and goods throughout the metropolitan area is of city-wide importance. Movement in Tshwane can be described by the following diagram showing major movement patterns in the area.

- Many public transport dependant persons moving into the CBD from the north, the west and the east characterise every morning peak.
- Masses of private vehicles originating in the south and south-eastern parts move from the city in a southerly direction towards Johannesburg.

##### 4.1 URBAN FORM AND TRANSPORT INTEGRATION

In all successful cities there is a strong linkage and interaction between movement patterns and systems and urban development. It is necessary that land use planning is done in a manner which supports public transport but it is

also necessary to ensure that mass public transport planning promotes and supports urban restructuring and sustainable urban development.

The city historically developed around a strong central core as mono-centred city. Private investment patterns changed over time with increasing car ownership and a ring of satellite nodes developed. These satellite nodes developed into viable decentralised locations, creating a multi-nodal urban form.

A further implication of the development of the satellite nodes is that the City of Tshwane is becoming increasingly inefficient and hence unsustainable spatially. More residents are becoming ever more dependent on private transport, which is becoming increasingly expensive. The majority of the City's residents have no option other than to rely on inadequate public transport which is also becoming more expensive and unsafe.

### **Spatial problems identified at Metropolitan Scale**

Tshwane is a very large and dispersed metropolis featuring numerous problematic characteristics:

- Low density sprawl: Based on an anti-urban ethic of the free-standing house on a plot.
- Fragmentation: the grain of development is coarse, with isolated (introverted) pockets (cells) connected by roads (and freeways), frequently separated by buffers of under-utilised open space.
- Separation of functions: land uses, public facilities (urban elements), races, income groups are all separated by great distances.

### **Settlement form**

The combined implications of the spatial patterns on the lives of the majority are disastrous:

- Much time-consuming and expensive commuting is necessitated, which aggravates poverty (and inequity) in society;
- City living has become over-dependant on the private car, which the vast majority cannot afford;

- Increasing numbers of private cars results in traffic congestion and increases pollution;
- The nature of roads results in environments which generate few opportunities to which small-scale economic operators can respond;
- The system is inefficient and wasteful of scarce resources, such as land, energy and finance.

### **Future Spatial Development of Tshwane**

In order for Tshwane to accommodate the projected population growth and become sustainable within the Gauteng context, densification will have to take place within specific transport orientated corridors.

The future spatial development of Tshwane will focus on the intensification of urban and metropolitan core areas. The growth of Tshwane should be directed inwards towards the urban cores, mixed used activity spines and specialised activity zones.

### **The nature of Public Transport Corridors and their role as Macro Urban Structuring Elements**

The development of a mass public transport system such as the IRPTN/Bus Rapid Transit System, Rail and Light Rail can be seen as a tool to achieve either of the following:

- The efficient movement of people around the metropolitan area; or
- The overall restructuring of urban functionality through the employment of an efficient and appropriate public transport system.

The distinction between the two objectives is important from an urban planning perspective. If the objective is merely to move people around in the city, particularly moving them from home to work and vice versa, then the development of a mass public transport system is purely a transportation issue and is primarily concerned with the provision of roads, infrastructure and vehicles.

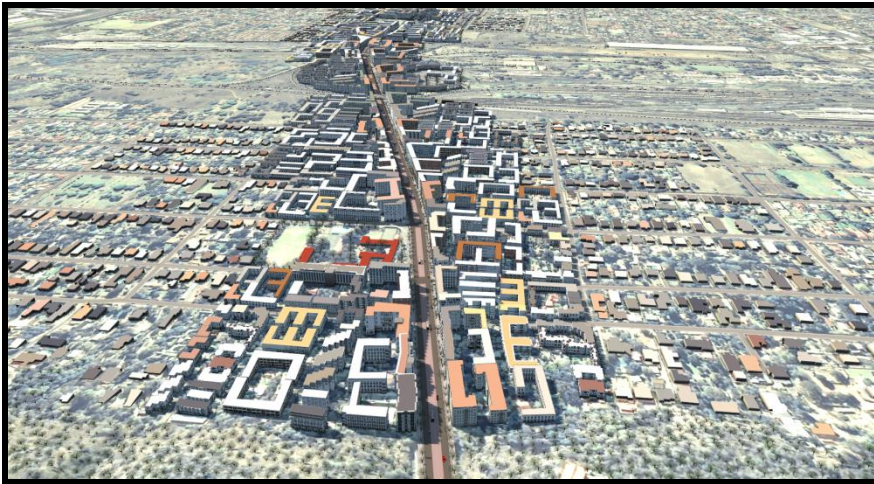
However, if such a system is to be utilised to improve not only the movement of people, but also to contribute to the improvement of the overall urban

functionality an urban image, then the integration between aspects such as transport planning, land-use planning, urban design and urban management becomes vital.

### **Mobility / Transport Corridors**

The primary reason for the existence of this type of corridor is to move large numbers of people from one point to another in the city and often over relatively long distances.

This corridor will typically move people from the peripheral areas to work opportunities and back during the day. Because of the long distances separating many people from their work opportunities there is a great need to move people around the city during peak hours in the fastest, most cost effective manner with as little stops as possible between the origins and destinations.



### **Activity Corridors**

The integration between land use, economic activity and movement is the key function of this corridor. People do not only move between the two outer points of the corridor but also between various points along the corridor.

A mature activity corridor displays most of the positive aspects associated with activity corridors, such as high residential densities and high non-residential land use intensities.

Such a corridor will be most appropriate in the more central parts where a number of nodes with a certain degree of intensity and mix of uses already exist in relative close proximity to each other.

Within the Tshwane context accessibility has to be ensured on the following three levels:

- To and from other parts of the world and South Africa
- To and from the Gauteng City Region
- Movement within the Tshwane Metropolitan Area

### **4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE IS:**

Highways which form the corridors for large scale economic development and connect Tshwane with the rest of Gauteng and the country. These include the N1, R21, the proposed western bypass and Bakwena Platinum Highway.

All areas in Tshwane must be well inter-connected by means of a good and efficient public transport system. Two systems are proposed that can serve as the basis of a public transport system, namely rail and the IRPTN/Bus Rapid Transit System.

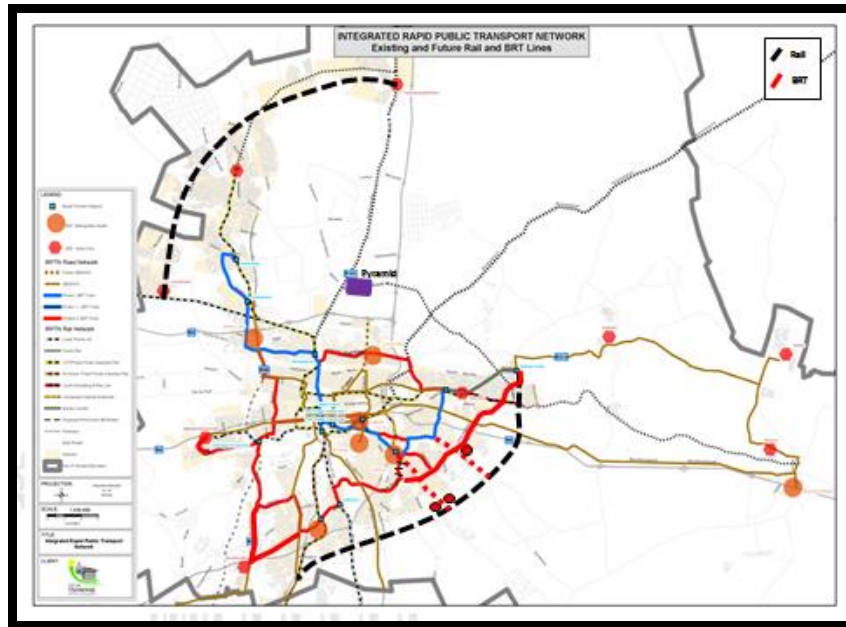
The existing rail system has great potential of becoming the basis of public transport throughout Tshwane and should therefore form the primary movement system, especially over the longer distances. This system however has current challenges that must be resolved.

The establishment of an IRPTN/Rapid Bus Transit System is the ideal solution to solve public transport problems over short to medium distances, and will also contribute to connecting metropolitan activity nodes that do not lie on the rail network with each other.

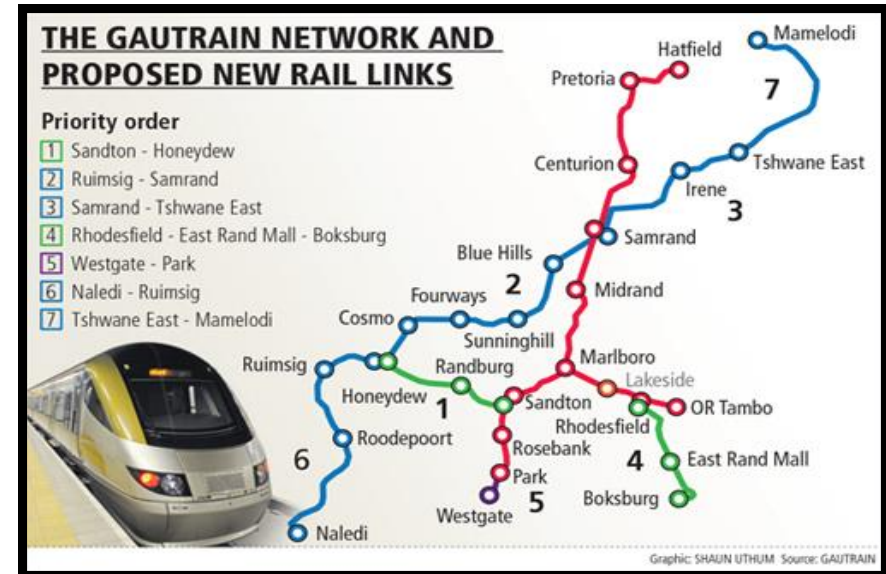


The incomplete concentric road network needs to be developed further to serve the multi-nodal structure of Tshwane.

The Gautrain which links Tshwane to Johannesburg and the OR Tambo International Airport by means of a high speed rail link. The areas around the Gautrain Stations provide the potential for urban renewal in and around station precincts. The proposed extensions of the Gautrain to the east of the city is supported and will improve the general movement within the city.



The Gautrain project is primarily aimed at enhancing and supporting economic growth in the Gauteng Province and generating employment. Gautrain is contributing to the urban restructuring of Gauteng. Gautrain station nodes are important as the more people start to stay around stations, the better services are used, less time and money is spent travelling and a more convenient lifestyle is offered.



Spatial inefficiency- densification policies cannot be implemented without the support of public transport. More residences add more vehicles on roads which are over capacity. Public transport can be regarded as the tipping point of the success of the city's spatial policies.

Bicycle lanes and pedestrian lanes: Effort must be put in the establishment of separate bicycle lanes pedestrian walkways to allow for safe movement of the latter. If the latter is provided it will encourage this kind of transportation which will alleviate traffic problems.

With regards to the movement system, the central concern should be maximising access to regional opportunities. Access has both physical and non-physical dimensions. At a physical level this relates to convenience and at a non-physical level this relates primarily affordability.

Apart from the physical route, there is also the matter of the means by which one will travel along those routes. Tshwane is experiencing high economic growth, a growing middle-class, and increased vehicle ownership that is causing a surge in traffic volume and congestion. Public transit has not been



providing an attractive commuting alternative for those who can afford private travel options.

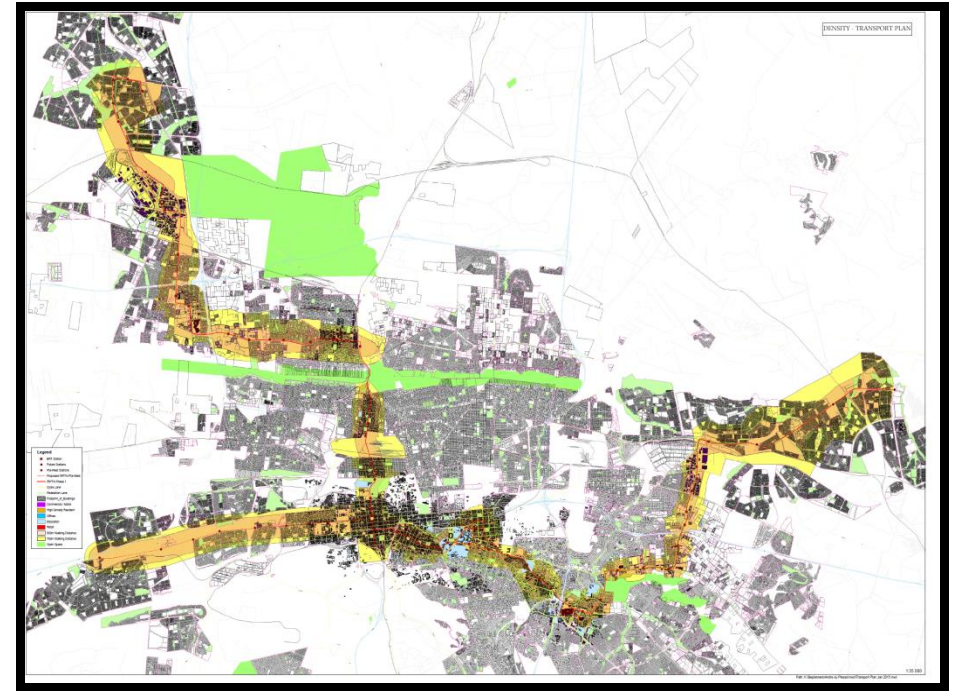
Prasa is currently undertaking studies into the existing and future demand and capacity of rail-based transport. All planning in this regard will also be informed by financial feasibility. There is an opportunity to create efficiency and close public transport gaps by integrating the BRT network with the Rail network. The BRT offers opportunities for both long and short distance travel. This means that where long-distance rail is not feasible, BRT can be implemented or *vice versa*, specifically in the case of long distance travel.



The integration should be carefully planned in order to ensure sustainability by avoiding competition between the two transport options. Preliminary indications are that there is not enough capacity to support both the Rail and BRT system along the same routes. Further, it is expected that the first phase of the BRT will link the Akasia and Menlyn area to the CBD. The BRT will provide both long and short distance travel options. This scenario negates the necessity for rail along the same route.

The Bus Rapid Transit and Rail should be the backbone of the future Tshwane transport system. The intention is that they become the preferred

mode of travel for the majority of residents. In time, the improved public transport system should slowly start overtaking private vehicle usage specifically in nodal areas. This intervention will encourage transit-oriented developments.



Key characteristics of transit-oriented development include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 800 metres of a transit station
- reduced rates of private car parking.

This means that developments that cater for, or provide public transport solutions or align themselves along public transport routes will be prioritised. The decrease of private vehicle usage will also promote pedestrianizing of urban areas and an overall decreased carbon footprint. On the reverse side, in order for efficient transport systems to be sustained, a critical mass of users must be achieved. This means that localities that would induce the convergence of large numbers of people would be required. This again, brings us back to the nodal concept of the widest possible range of services within an area and highest residential densities being supported. The higher the rate of usage of the public transport system, the more affordable it will be. At the same time, the convergence of a large number of private vehicles in a locality causes traffic congestion and an avoidance of such an area by those who have alternatives. Removal of private vehicles can effectively improve the quality of an environment.

The City's road, rail and air movement systems will need to be developed to optimise all related opportunities. The rail system should become the backbone of public transport throughout Tshwane and it is therefore an important structuring element of the city. The positions of the urban cores purposefully coincide with major railway stations. The Gautrain stations in Tshwane include Hatfield, Centurion and the Inner City, again creating opportunities for intensification and development. Further expansion to the east will also allow for additional densification opportunities.

The proposed metropolitan vehicular movement system should be designed to support the rail system, i.e. to enable convenient transport of people to and from the railway stations. The rail network which is well developed with only a few missing linkages is not utilized in terms of its potential as a mass transport facility. With the majority of the population dependant on public transport the strategic rethinking of this mode of transport is necessary.



### Livable Streets Concept

Liveable streets are defined as streets for everyone that are planned, designed and operated to enable a network of safe access for all users, including pedestrians, cyclists and transit riders.

The liveable street concept requires streets to be designed to enable safe, convenient and comfortable travel and access for all users, regardless of their mode of transportation. Complete streets accommodate walking and cycling. Streets are currently designed to only cater for cars; pedestrians are accommodated in the leftover space along narrow sidewalks. No provision is made for other modes of transport and the socialising function of streets is ignored. This is specifically problematic in the inner city where there are large numbers of pedestrians and where the limited space available requires streets to be part of the open-space system.

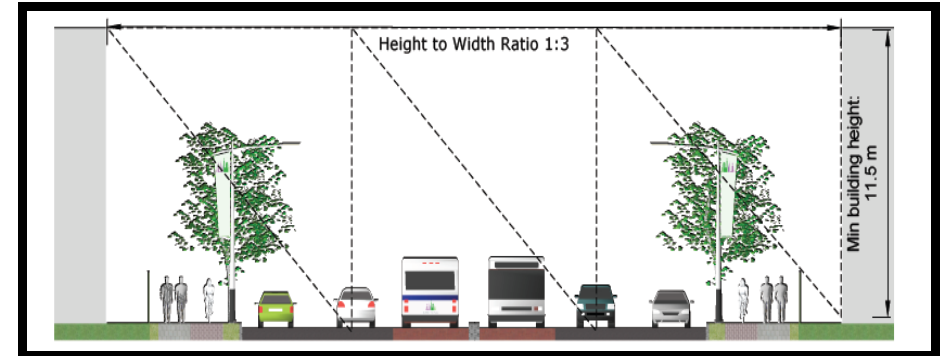
In terms of the complete streets concept vehicle and public transportation users are separated. It also makes provision for the socialising needs of residents and inner city users.

The design principles of complete streets are –

- traffic-calming measures to lower the speeds of vehicles;
- a road diet to reduce the number of lanes for vehicles and on-street parking;
- landscaping and streetscaping elements such as trees and benches to create a conducive pedestrian environment and protect pedestrians from vehicles;
- wide sidewalks to accommodate comfortable pedestrian movement;
- widening of sidewalks in some places to allow for socialising spaces;
- accommodation of cyclists, such as protected or dedicated bicycle lanes; and
- accommodation of public transport such as the bus rapid transit.



Source: City of Tshwane, City Planning and Development Department



The attached diagrams give a clear indication of how the trunk routes must be developed in cases where 32 m and more than 40 m road reserves are available.



## 5. ENVIRONMENTAL STRUCTURING CONCEPT

### 5.1 HERITAGE AND CULTURAL SITES

Tshwane's urban form and identity is closely linked to the influence of its natural and cultural elements. The developed areas are intimately intertwined with open spaces, creating a city with a unique character. The spatial development of the city should continue to value the role and prominence of the natural environment that sustains and informs the city. The natural structuring elements of Tshwane are those physical features that have to a great extent influenced the historical growth and settlement development pattern and that have an important ecological role to play in the ecological integrity of the metropolitan area.

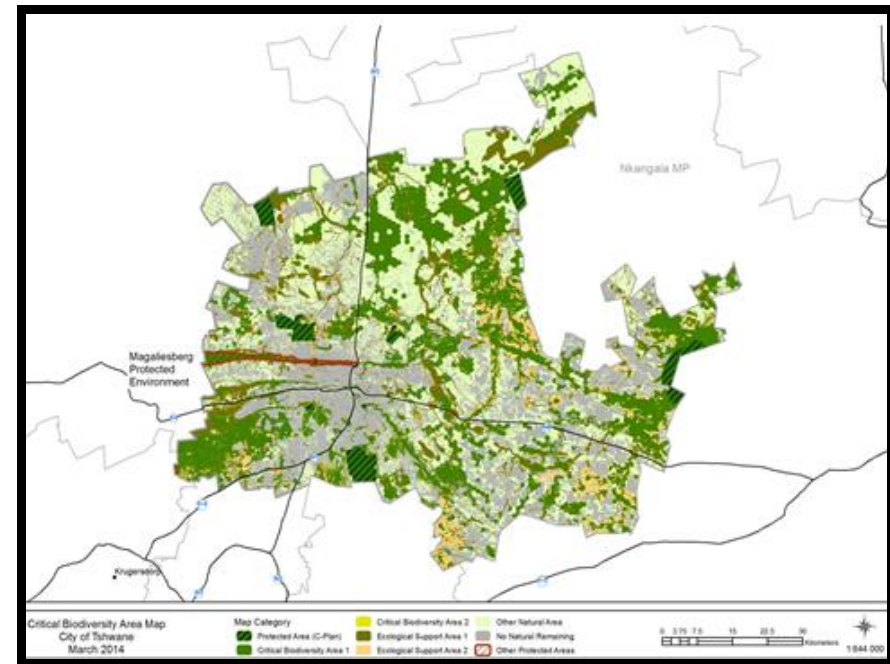
### 5.2 OPEN SPACE AND CONSERVATION AREAS

A well-defined open space network is an important and integral part of the Spatial Development Concept of the MSDF.

The Tshwane Open Space Framework was approved in November 2005. The Framework will need to be reviewed and updated to include the newly incorporated areas of Tshwane.

The development of an open space network is an integral part of shaping the city. Ecological resources are irreplaceable and should thus be one of the major structuring elements guiding the development of the city instead of unplanned urban growth taking precedence and open space becoming merely land that is not desirable for urban development and thus 'left over' space. An important step in shaping urban form is thus the determination of an open space network, which contains natural processes and systems. The open space network is concerned with the spatial structure of green areas in the urban landscape and with all planning activities that are essential to create conditions for green areas to perform ecological services and to contribute to the quality of urban life. It is thus used to indicate the position of green areas in the urban landscape. As such it has spatial, social and technical dimensions. An open space network is also a planning concept, indicating the intention to develop planning and

management tools for the structural role of green areas in the urban fabric and the urban organization.



An open space network contains not only the elements that constitute the open space in itself (vegetation, water, animals, natural materials etc.), but above all how the various open spaces are shaped in relation to the concepts of distribution and organization, to form a system of open spaces. An open space network incorporates a wide variety of open spaces into one system. Open spaces cease to be discreet elements within the city but together form a network in which each component contributes to the whole.

It must be stressed that an open space network does not focus only on 'green' spaces, but also on more urban or 'brown' spaces as well as spaces that contribute to the place-making of the city.

From a city-planning perspective open spaces have various important functions:

**City structuring:** Historically Tshwane's numerous mountain ranges and ridges, rivers and water courses, and nature reserves and conservation areas have had a lasting impact on the city form and development pattern. Today this impact is still felt, as the Magaliesberg with only a few crossings still forms a barrier between the more prosperous southern suburbs of Tshwane and the less well developed northern suburbs. The scenically beautiful conservancy areas in the south-western part of the city form natural buffers for urban expansion in that direction.

On the other hand these structuring elements do present an opportunity to connect and integrate the various parts of the city, e.g. the Apies River which crosses almost the entire municipal area from south to north.

**City image and identity:** The mountain ranges and ridges, and large conservancy and protected areas in particular, and rivers and water courses to a lesser degree, are responsible for Tshwane's unique African character and identity, which is being best described as 'nature within a city' and 'a city within nature'. There is the positive contrast between the built-up and natural environments everywhere, but nowhere more expressive than at the southern approach to the inner city. This uniqueness must be protected, enhanced and celebrated at all costs in the future.

**Urban expansion:** The large open spaces (ridges, conservancies, protected areas, etc.) contain urban expansion and prevent the city from developing into a monotonous build-up urban 'desert'. Because of the limitations on land availability this will eventually lead to a more compact city with higher densities, guarantying a more sustainable and efficient urban structure for the future.

**Land Uses:** Land-use planning must be done in relation to the open space network where possible, which creates the opportunity to place various urban land uses or developments inside or adjacent to the network. The full potential of the open space network can therefore be exploited for unique projects which otherwise would not be feasible.

Open Spaces thus include the following:

**Conservation Areas:** Areas designated for nature conservation, which may include tourism related facilities and recreational facilities directly related to the main use.

**Tourism and recreational related facilities:** Outdoor and tourism related activities, including hiking trails, hotels, 4x4 trails, wedding venues, conference facilities, curio markets, farm stalls, restaurants, game lodges and resorts with a rural character with due consideration to its impact on the surrounding area and environment. The CoT has tremendous opportunities in the eco-tourism arena. Most of the eco-tourism activities occur along the Roodeplaat Dam which is situated in the north of Cullinan (Zambezi) Road on the farms of Zeekoegat, Leeuwfontein and Roodeplaat. There is also the Dinokeng Blue IQ project. Eco-tourism activities that can be enjoyed include but not limited to the following: game farms, nurseries and bird watching to mention but a few.

**Residential (within the natural areas where you find irreplaceable, important and highly ecological sensitive sites):** Environmental Development or **service centres** aimed at the local market, and which are situated at a service delivery centre or central place to the community.

Estates where the primary focus is the conservation of the natural resource (open space). Conservation in this sense must not be seen as only protecting special or sensitive environments, but conserving open space as a valuable resource itself. The residential development is seen as a mechanism to protect and enhance the open space character and not as an end in itself. Special conditions shall apply in the consideration and approval of such developments, including the following: Dwelling units shall be grouped together in as few clusters as possible; a Strategic Environmental Assessment shall be done to determine the open space, the position of the clusters, the position of ancillary uses, roads; conservation conditions shall be strictly adhered to; conditions shall be set for the design, character and overall relationship with its environment.



### 5.3 RURAL MANAGEMENT

#### Introduction

The erstwhile City of Tshwane (previous dispensation) was mostly characterize as an urbanized Metropolitan area with only a smaller sector known and characterized as definite Rural Areas. It is also important to note that parts of these apparently Rural Areas were further earmarked as Future Urban Development. These Future Urban Development Areas were designated in terms of each Regional Spatial Framework for future urban expansion and development.

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order e.i. to protect the Environmental sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land use development in the less sensitive areas.

#### Background

The following source documents were used as building block for the compilation of the revised Rural Component, Rural Management and Rural Development:

- Tshwane Biodiversity Plan. (2016))  
All information with regard to the existing Urban Edge, Ridges, Ecological support areas, important areas, Irreplaceable areas, Protected areas, Game Reserves and Nature Reserves were used
- The existing and future provision of essential services  
Information with regard to the provision and capacity of Water ( Reservoirs), Sanitation (Waste water plant), Roads, Storm water, Electricity, watersheds and flood lines were used to determine the development edge

- The Metsweding Environmental Management Plan
- The “Division” Plan and policy
- The Gauteng Spatial Development Framework 2011.
- The National Planning Commission: National Development Plan 2011: Chapter 6: An Integration and Inclusive Rural Economy.

It must be noted that all these documents were used to inform the revised Rural Component and did not dictate the final product.

#### Demarcation of the Rural Component

In terms of the Gauteng Spatial Development Framework, 2011 the function of determining the Urban Edge has moved to the Local Authorities and is a function is not part of the Provincial Planning functions.

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

These areas will remain as Future Urban Development as it shall retain a rural character until such time that basic service can be provided. These areas still need to be managed as rural areas with specific guidelines contained in the different RSDF's.

As soon as the areas earmarked as Future Urban Development been serviced, these newly serviced areas will be excluded from the Rural Component and will form part of the urban fabric of the city.

#### Vision

The Tshwane Rural Component will promote:

- An effective response to rural poverty.
- Ensure food security by maximizing the use and management of natural and other resources.

- Create vibrant, equitable and sustainable rural communities.
- To contribute towards the redistribution and sustainable use of all potential agricultural land.
- Rural economies will be supported by agriculture, and where possible by mining, tourism and agro processing.
- To create employment and business opportunities for the existing rural population.
- Aims to prevent natural disasters like erosion and pollution and other detrimental effects on natural resources.
- Formalize residential settlements according to the Rural Component Framework.
- Identification of multipurpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations.
- Adequate and respectable services must be addressed to improve living conditions.
- The matter of ownership and tenants' rights must receive attention especially in areas where tribal land ownership exists.

### Guidelines

In the new Tshwane Metropolitan Rural component, the following conditions exist that need to be taken into consideration. Each Region has its own specific rural character and rural composition and detail proposals for the Rural component are therefore dealt with in each Regional context. Various Rural land use / Rural activity zones are located within the Rural areas and are indicated on the different Rural Component map for each Region. Together with the maps there are tables contained in each of the Regional Spatial Frameworks with restrictive or promotional conditions for every Rural land use/Rural activity zone located in that Region.

The Rural land uses/Rural activity zones for Tshwane Metropolitan area are:

- Development Edge
- Major Rural Roads
- Existing Infrastructure for essential services

- Future Urban areas
- Management zones
- Agricultural areas and
- Agricultural High Potential areas
- Sensitive protected areas.
- Tourism potential places / areas
- Human settlements
- Conservancies
- Game and Nature Reserves
- Mines / Places of manufacturing
- Community Service Centres

### Conclusion

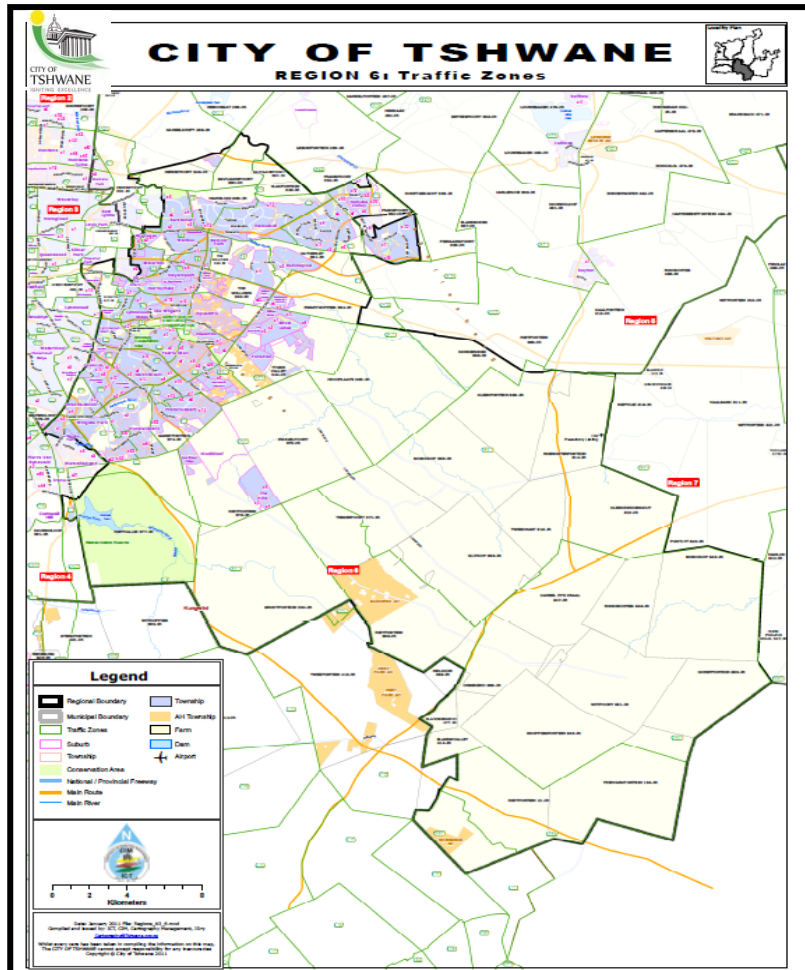
The main principle is to increase accessibility of rural people to basic services in support of survival strategies in the first instance and, in the second, to establish a base from which to start engaging more in productive activities. Given limited resources, the rural component should provide for basics for survival to all existing settlements but no provision for additional settlement growth. Localities with some economic potential should receive higher levels and a wider range of services/facilities.

The Smart growth principle will further more be strengthened through a well-managed Rural Component and will assist in:

- Discouragement of urban sprawl and contain growth with the city limits
- Compaction of the city through infill and densification
- Improvement of the utilisation of existing infrastructure, services and facilities
- Preservation of the rural environment and landscape
- Protection of agricultural land, especially high potential agricultural land
- Preservation of the environments that promote tourism, recreation and nature conservation
- Assisting the urban regeneration by adopting an inward approach
- Protecting cultural and tourism assets.

## PART THREE: REGIONAL ANALYSIS

### 3.1 LOCALITY



Region 6 is bordered by the Magaliesberg Mountain range to the north and the N1 freeway to the west and Ekurhuleni Local Municipality to the South.

The Region includes large parts of the former Kungwini and Nokeng Tae Tsamane regions.

It is accessible via:

- The N4 freeway which links the City of Tshwane with Mpumalanga Province and runs east-west through the region.
- The N1 freeway which runs on the western side of the region and links the City of Tshwane with the Limpopo Province in the north and Johannesburg, Bloemfontein and Cape Town towards the south.
- The R21 freeway along the western boundary of the region which links the City with the Ekurhuleni Municipality and the OR Tambo International Airport.

The region clearly enjoys a high level of accessibility.

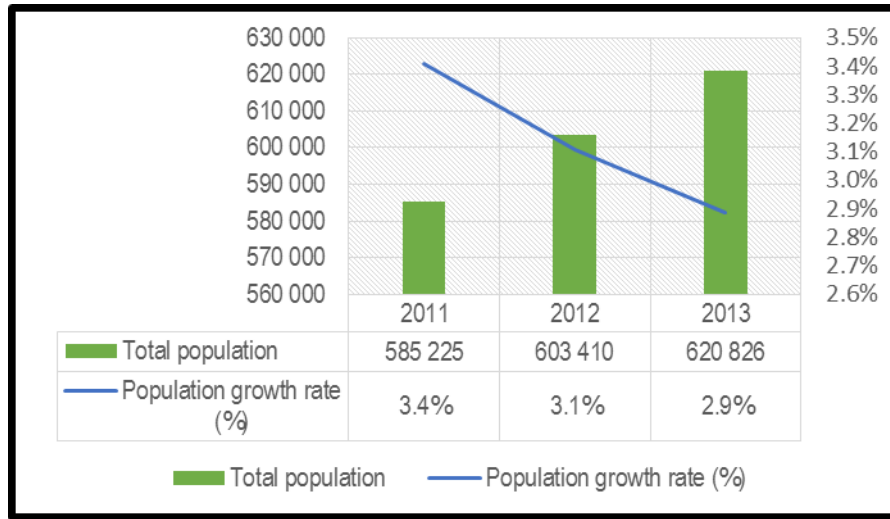
### 3.2 AREA

The region is 885 km<sup>2</sup> in extend.

	M <sup>2</sup>	km <sup>2</sup>	ha	Wards
<b>Region 6</b>	885,239,940	885	88524	24

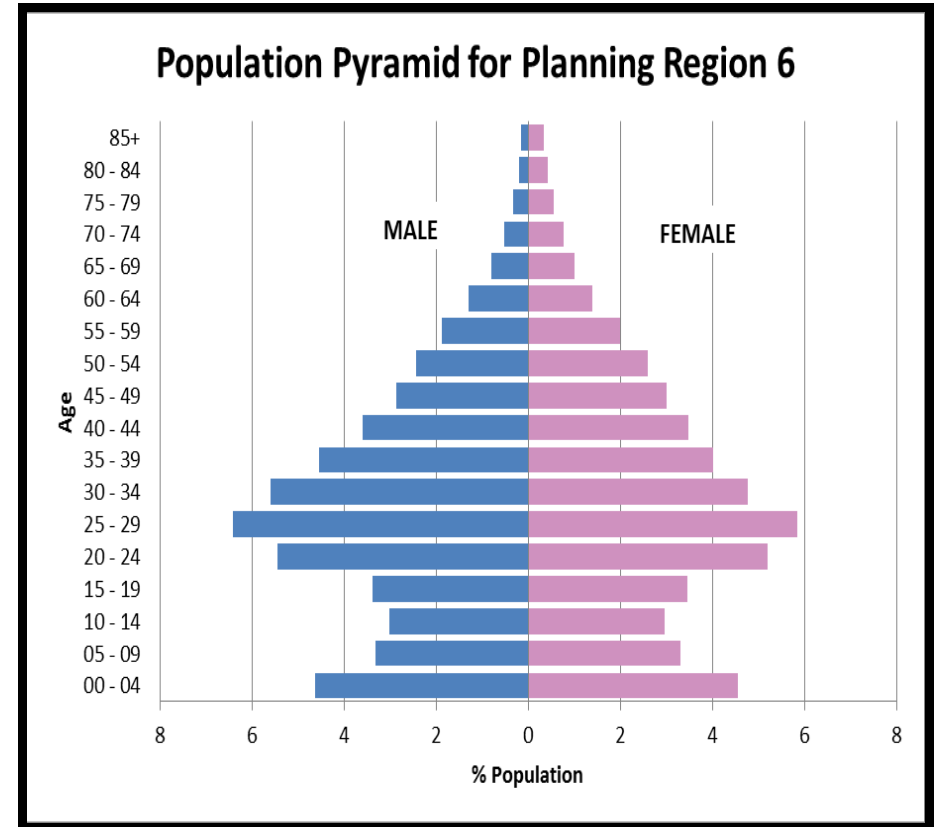
### 3.3 DEMOGRAPHIC INFO

An estimated population figure for this area suggests 648 501 people in 2017.( IHS Global Insight ) The average growth rate for Region 6 is about 2.8%.

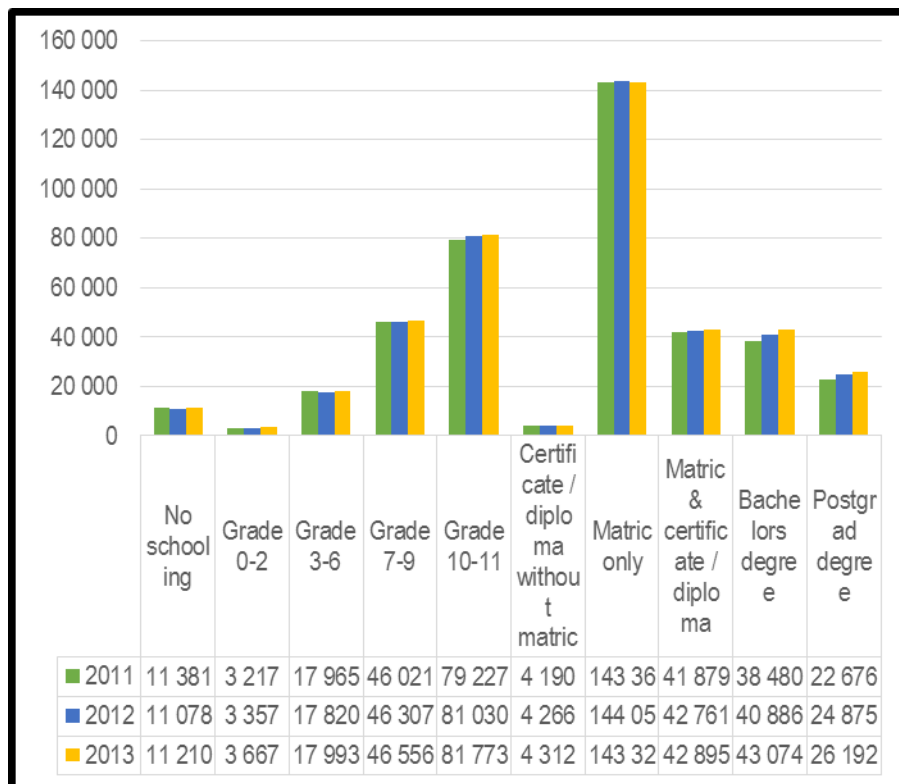


The above indicates the total population and in Region 6 and the associated percentage growth rate since 2011 to 2013. As indicated in the figure, population in Region 6 has been steadily increasing in nominal terms, however, the percentage growth has been subjected to a decline. In 2011, the total population was approximately 585 225 and grew to 620 826 in 2013. The population growth is growing at a declining growth rate, in 2011 the year-on-year population growth rate was at 3,4 percent and has since declined to 2,6 percent in 2016.

Region 6 has an unemployment figure of about 20.5 % which is below the national average of 25% 998



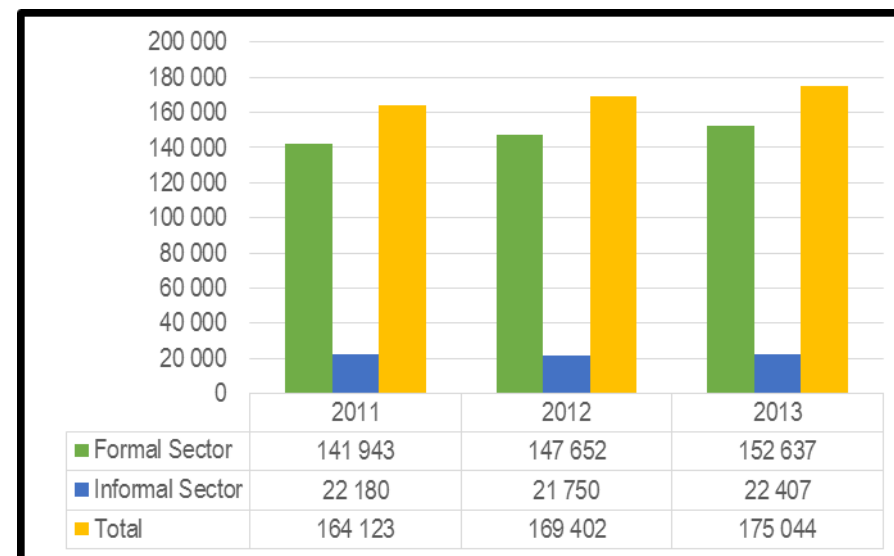
The graph above indicates the 2011 and 2013 population pyramid for Region 6, from the figure, it can be noted that there is a youth bulge in Region 6's population i.e. it can be observed that a significant portion of Region 6's population is younger than 35 (57.5 percent).



The above graph indicates the highest levels of schooling for the population aged 20 years and older in Region 6. As indicated above, Tshwane has over the year under review i.e. 2011 – 2013, increasingly performed well with respect to education, more so in the accumulation of both matric and post matric qualifications. In 2011, approximately 242 402 individuals aged 20 years or older, had at least a matric qualification, this has since increased to 255 485 individuals in 2013. The number of individuals aged 20 years or older with no schooling have since declined from 11 381 in 2011 to 11 210 in 2013, i.e. a 16 percent improvement.

#### Employment in Region 6 by sector (formal and informal), 2011 -2013

999

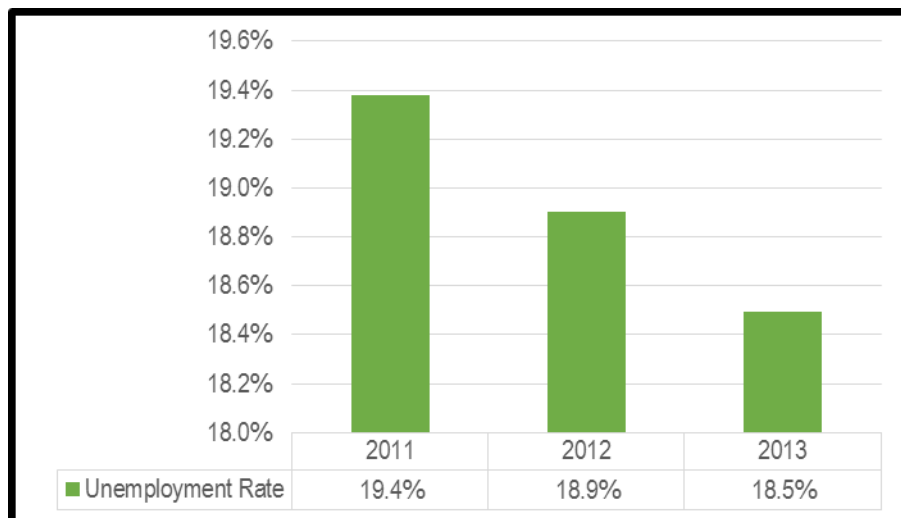


Source: IHS Global Insight

The above graph indicates the total employment in Region 6 disaggregated by sector (formal or informal). As indicated, the total employment (absolute terms) in Region 6 has been steadily increasing over the 2011-2013 period. In 2011, total number of individuals employed in the region were approximately 164 123, these have increased to 175 044 in 2013. As one would expect, the largest composition of this growth is in formal sector employment which was 141 943 in 2011 and this has increased to 152 637 in 2013, whilst informal sector employment has increased from 22 180 to 22 407 during the same period.



### Unemployment rate in Region 6, 2011 -2013



Source: IHS Global Insight

The above graph indicates the unemployment rate in Region 6. It can be noted from the figure that the unemployment rate in Region 6 has been declining over the 2011 – 2013 period. In 2011, the unemployment rate was 19.4 percent, this improved to 18.5 percent in 2013.

### Service Delivery

This section focuses on household dwelling, sanitation, access to basic water, refuse removal and electricity as key municipal level service delivery indicators. These indicators have been reviewed over the 2011 - 2013 period.

### Share of households in region with access to formal dwellings, 1000 hygienic toilets, piped water at or above the RDP-level and electricity, 2011 -2013

Year	Share of household occupying formal dwellings (%)	Share of households with Hygienic toilets (%)	Share of households with piped water at or above RDP-level (%)	Share of households with electrical connections (%)
2011	76,6%	89,7%	95,1%	82,8%
2012	77,0%	89,5%	95,6%	82,1%
2013	77,5%	89,0%	96,0%	81,1%

Source: IHS Global Insight

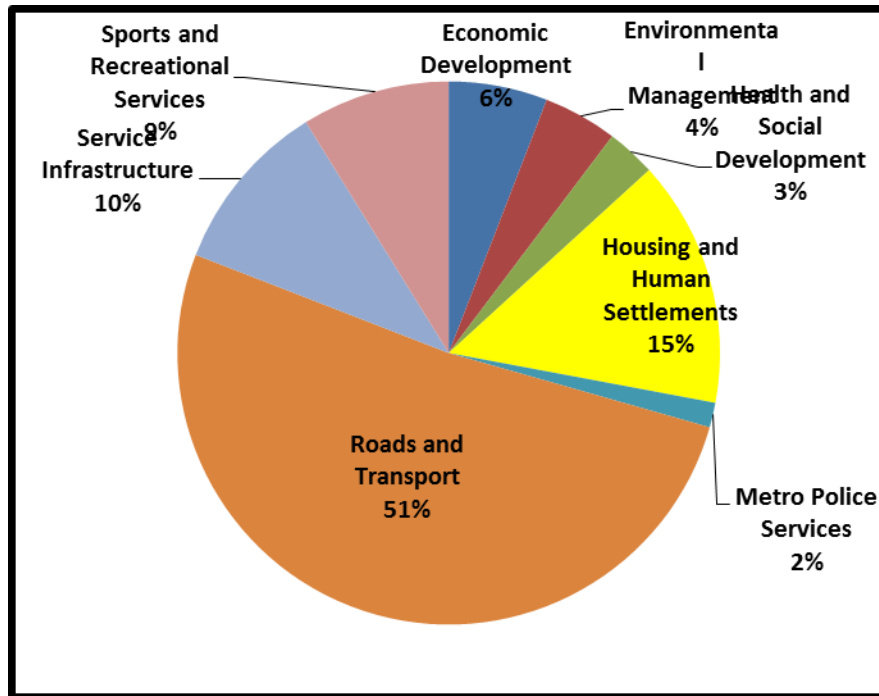
### 3.4 WARD PRIORITIES FOR 2015/16

During the public participation process in preparation for the 2015/16 IDP review; the three top priorities per ward in terms of community needs / service delivery were reconfirmed and compiled.

In summary, the following were the key dominant service delivery areas which were raised in Region 6 during the 2015 review process:

Dominant Service Delivery Areas		
Service Department	Delivery	Community Issue / Concern
Roads and Transport		Construction of roads / tarring roads Storm water management Bridge construction Road upgrades in nodal areas
Housing and Human Settlements		Formalisation of informal settlements Need for rental units / hostel upgrades
Service Infrastructure		Provision of public lighting Replacements of leaking water and sewerage pipes

The service delivery issues which were raised are therefore clustered into relevant City's departments as per the graph below:



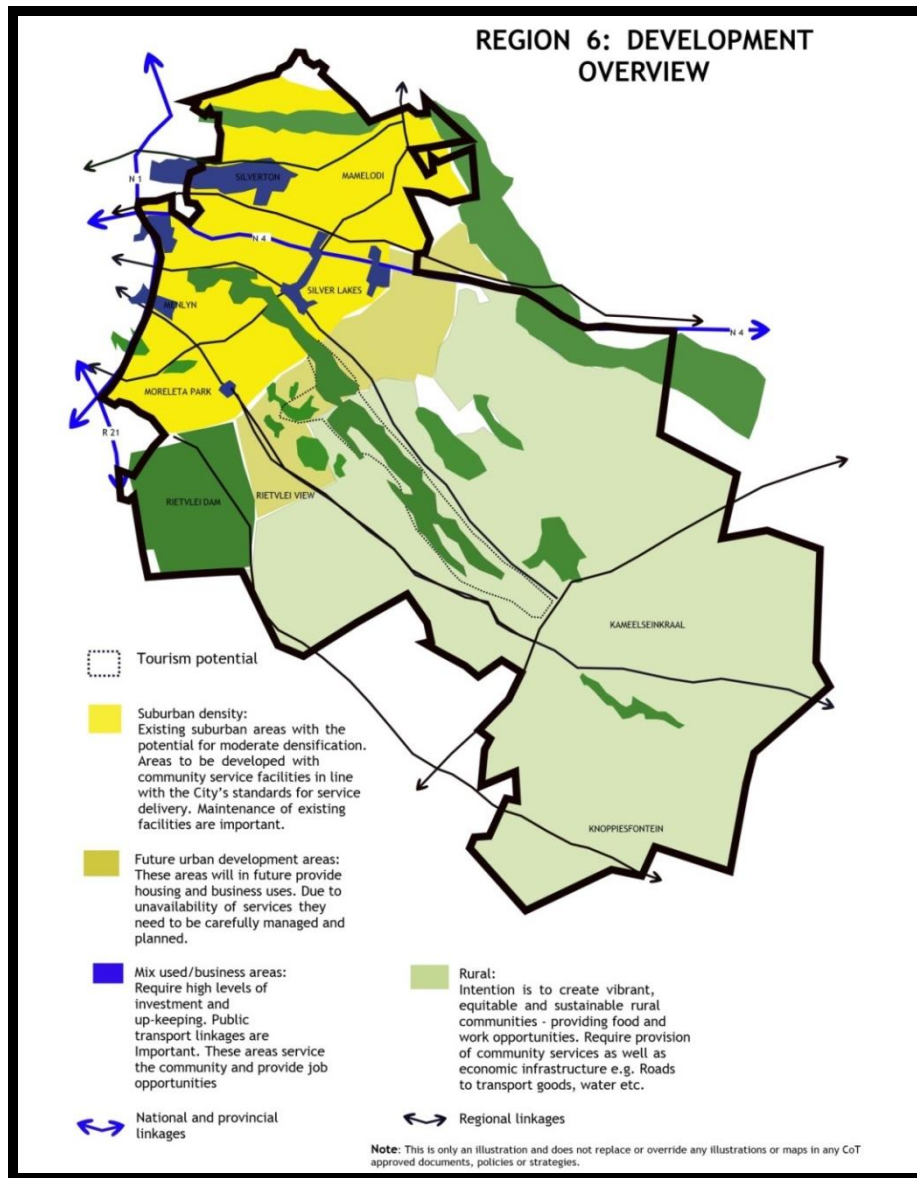
### 3.5 REGIONAL CHARACTERISTICS

The main characteristics of the Region 6 are discussed below:

- The south-eastern section of this region has the highest income per capita and could be considered the fuel injection of the city.
- However, there is also a huge concentration of people in the north east quadrant, representing low and no- income groups.
- It is the region with the greatest development pressure.
- Decentralised nodes accommodate a wide range of urban facilities.
- The region is popular in terms of retail as well as office functions as many of the higher category retail and office functions of the City have relocated to this region over the past few years. Further to this is also

the second most important industrialised area in Tshwane situated in Silverton/ Silvertondale/ Waltloo/ Bellevue- area. 1001

- Suburban areas are mostly low density in nature and the region accommodates a number of Golf and Life Style Estates such as Woodhill, The Hills and Silver lakes. However, there is also a high density area to the north of the region with large areas planned for RDP type development and informal settlements invaded the land before construction of services took place.
- The historical radial linkages to the CBD are prominent.
- There is a high dependency on private motor vehicles, from the southern section of the region, placing an impossible demand on the road infrastructure. Further to this is a high rail related dependency of the north eastern quadrant to the City Centre. No south connection is possible.
- There are also an unusually high dependency on bus travel through the area from the far outlying rural areas e.g. Moutse and Moloto.
- The Bronberg and the Magaliesberg Mountain range is a major environmental feature running east to west in the northern part of the region. It provides limited thoroughfare, with only two major crossing points.
- The Moreleta Spruit and its tributaries cover virtually the entire area to the south of the Bronberg, contributing to the well-defined regional open space system of the southern part of the region.



- Further to the south of the region is the Rietvlei Dam and Nature reserve which is one of the larger open space assets of the City.
- The region contains a number of strategic land uses including the CSIR, South African National Intelligence Service and the Menlyn Park Retail Node which has a metropolitan function in terms of facilities.
- The Hatherley landfill site has a metropolitan function in terms of its Strategic nature and size. No other sites are known for future development in the Metro as yet.
- The region contains three large private hospitals as well as the Pretoria East Cemetery.
- Almost all the developable land within the southern section of the Region has been developed and the uncontrolled development in the old Kungwini area places a burden on the existing saturated road infrastructure.
- The north-eastern section of the region accommodates mostly low-income communities and industrial land uses.
- The middle and south-western section of the region accommodates medium to high-income areas with large institutional uses.
- The northern section of the region includes a number of strategically located undeveloped areas in terms of accessibility and infrastructure which offer significant development potential

### 3.6 STRUCTURING ELEMENTS

The main structuring elements of the region include:

- The N1 and N4 Freeways facilitating north-south and east-west regional linkages with the rest of the country.
- The secondary (mobility) roads including Lynnwood Road, Atterbury Road, Garsfontein Road, radiating from the CBD through the region and Solomon Mahlangu Drive (Hans Strydom) linking the three roads with the N1 in the south and N4 in the north.
- The Bronberg Mountain limits road linkage with the northern section of the region to only two major crossing points.
- The Moreleta Spruit and its tributaries covering the entire area forming an interlinked regional open space network.
- The Rietvlei Nature Area limiting southward expansion of the region.
- The Urban Edge roughly following the municipal boundaries and currently under pressure due to limited expansion possibilities.

The low density rural residential estate – Mooikloof – limits expansion in a south-eastern direction.

- The Menlyn retail node and Silverton/Waltloo Industrial node within the region plays a further important structuring role in terms of economic development and regional accessibility.
- Pretoria Road and Stormvoël/Tsamaya Roads are parallel to the N4.
- Large industrial and vacant land parcels divide the mainly low-income in the north east and the higher income areas to the south.
- A railway line runs east-west through the region with industrial and residential uses following this line, and a north- south line linking with the huge freight facility near Babsfontein to the south east of the region.
- The Magaliesberg forms the northern boundary of the region and limits access to the areas north of the mountain.
- Micheal Brink (Nico Smith)/Stormvoël/Tsamaya Roads provides east-west linkage between the north eastern part of the region and the CBD.
- Linkage between the north-eastern part of the metro and the CBD is very poor and obstructed by the mountain range.

### 3.7 ECONOMIC BASE

Region 6 includes the following activity nodes of significance in terms of job opportunities:

Node	Formal Jobs	% of Tshwane
CSIR/ Technopark	4738	0,8
Lynnwood East	6427	1,0
Menlyn	14836	2,4
Atterbury	7972	1,3
Eastern Suburbs	9750	1,6
Armscor/ Castle Walk	6067	1,0
Waltloo/ Silvertondale	34 180	5.5
Silverton	12 756	2.0
East Lynne	4037	0.2
<b>TOTAL</b>	<b>99803</b>	<b>16.71</b>

The economic base for Region 6 is well balanced between the retail, office sector in the southern and western sections, with commercial,

warehousing, wholesale or industrial activities in the northern section. Information will be updated with the information obtained during the compilation of the 2015 Transport Plan. 1003

### 3.8 PHYSICAL ENVIRONMENT

#### 3.8.1 NATURAL STRUCTURING ELEMENTS

The environmental features of Region 6 are major form giving elements that determine the surrounding urban structure.

**Region 6 is characterised by the following:**

- Significant ridge systems and hills in the southern part, most notably the Bronberg, Moreleta Kloof, CSIR, Equestria and Rietvlei systems.
- Significant watercourse systems in the southern part, most notably the Moreleta Spruit and all its tributaries (Tweefontein, Waterkloof, Garstfontein, Constantiapark, Philadelphia Spruit);
- Several dams, that being the Rietvlei, Struben, Boardwalk and Marais Dam, as well as wetlands at the Rietvlei and Cussonia Loop, etc
- Protected Areas at Faerie Glen, Moreleta Kloof and Rietvlei Nature Reserves;
- Ecologically sensitive areas north of Rietvlei Nature Reserve, north of Bronberg Ridge;
- Several golf courses such as Woodhill and Wingate Park;
- Very few sport facilities, east of the N1;
- Very little COT maintenance data on especially watercourse systems,
- Significant development pressure on open space resources;
- Open space security concerns;
- The absence of any significant regional recreational open space facility;
- Potential Placemaking opportunities around N1, N4, R21 provincial routes and at the Menlyn Core.
- Significant ridge systems in the northern parts, notably the Magaliesberg system ((the Magaliesberg in this region is not formally protected as a PNE), Silverton Ridge.

- Significant watercourse systems throughout, most notably the Pienaars River, Moreleta, Vlakkfontein, Hatherley, Hartebeest, Edendal, De Moot north and De Moot south Spruite;
- Significant wetland systems at the Cussonia Spruit, Nellmapius;
- Protected Areas such as the National Biodiversity Institute (Botanical Gardens) and the Frank Struben Bird Sanctuary;
- Ecologically sensitive areas associated with ridge and watercourse systems and the Metropolitan Landfill site at Hatherley. There is also significant heritage sites at the landfill site and surrounding area;

### 3.8.2 STRATEGIC LAND USES

Region 6 includes a few prominent land uses of strategic significance to the local as well as the broader urban environment of Tshwane. These include:

- The CSIR facility which in former times was a national scientific asset, is east of the Innovation Hub (A Blue IQ project of the province).
- The Menlyn node serves not only the local area but has a city wide function in terms of retail facilities and services.
- The South African National Intelligence Service is situated in the south of the region close to the Rietvlei Dam Nature Reserve.
- Silverton/Waltloo / Koedoespoort industrial which is identified as one of the Specialised Activity Areas of metropolitan importance in terms of the MSDF. This area enjoys excellent accessibility by both road and rail and has shown through the analysis that at a metropolitan level it is significant in terms of providing job opportunities (industrial related) on a large scale.

### 3.8.3 NODES

The southern section of the region accommodates some of the more affluent communities of the City of Tshwane with the result that many offices and retail functions have relocated to this part of the region during the past few years.

Menlyn is classified as a metropolitan node. Faerie Glen Pick and Pay and Atterbury Value Mart are classified as small regional centres.

The Menlyn precinct is a Metropolitan Core and besides the CBD is the strongest node of the Metropolitan area. The Menlyn Shopping Centre, Menlyn Main and surrounding office parks, motor city, including the Water Glen Shopping Centre and Oberon Park office area has a cumulative floor area in excess of 1 200 000m<sup>2</sup>. Infill development to accommodate high intensity mixed land uses up to the January Masilela Drive as well as the provision of high density residential should complete this metropolitan node. In addition to the above it is proposed that areas surrounding the node be considered for provision of higher density housing.

The direct areas surrounding the Menlyn Node should be strongly considered for high density residential development. The recently upgrading of the road system around the node including a new interchange at the N1, Garsfontein Drive has unlocked the western side of the N1 to including parts of the Ashlea Gardens area for development.

Office uses are dominant around the Rigel Avenue node and at the CSIR. Offices further occur along Lynnwood Road, Atterbury Road and Garsfontein Road. The intensity of office and other non-residential uses decline from west to east, with little activity to the east of Solomon Mahlangu Drive.

The Silverton/ Waltloo area can be regarded as a node with a more regional function due to the mix of land use. The motor manufacturing plant located within this node exports internationally. The Eerste fabrieke Station Precinct is identified as an Urban Core and is also included in the Zone of Choice.

The following reflects the size of the existing retail nodes in Region 6:

Menlyn	:	150 300 m <sup>2</sup>
Menlyn Retail & Main	:	50 000 m <sup>2</sup>
Atterbury Value Mart	:	53 400 m <sup>2</sup>
Woodlands	:	71 000 m <sup>2</sup>
Parkview	:	52 000 m <sup>2</sup>
Glenfair/ Lynwoodbridge	:	25 000 m <sup>2</sup>
The Grove	:	50 000 m <sup>2</sup>
Max City	:	40 000 m <sup>2</sup>



The RSDF indicates a number of nodes (either existing or emerging) which are important on a regional and local level.

New nodes might develop on intersections of the new alignment of the K54 and major transport routes. The extension of existing, well located nodes should however be encouraged before the creation of new nodes. Most parts of the K54 lie outside the boundaries of the Eastern region and Tshwane. As in the case of existing nodes, it is proposed that higher density residential uses be introduced as part of the node. It should also include social and community facilities. A number of these nodes are located in the old Kungwini municipal area..

It is envisaged that urban regeneration projects in future will assist in the re-development of older nodes e.g. Old Mamelodi CBD.

Typically community centres and neighbourhood centres should include both commercial and social facilities, such as retail facilities, schools, professional offices and community facilities, where such facilities are absent in the surrounding area.

For these nodes to function properly they should form part of a hierarchy of nodes, directly related to the characteristics of the population it serves.

Higher density areas will therefore have a higher frequency of nodes in a smaller geographical area. The ideal locality of such nodes will have to be determined through retail studies taking into account all factors that could have a significant impact on the success of such a node.

### 3.8.4 MIXED USE ACTIVITY AREAS

Job opportunities of the region are mainly contained in the nodes. The present main job opportunity areas of the region are:

- CSIR/ Technopark.
- Menlyn node.
- Atterbury Value Mart /Pick 'n Pay.
- Sanlam/ Lynnwood East.
- Castle Walk/Armscor.
- Waltloo/Silverton
- Hans Strydom/Silverlakes

### – Boschkop/Lynnwood Junction

Two future mixed use areas of strategic importance have been identified for Region 6.

The first being City Council owned land opposite the Woodlands Boulevard Shopping Centre in Pretorius Park. This land is served by Garsfontein Drive and De Villebois Mareuil Drive, it is ideally located to accommodate mixed land uses comprising offices and a small percentage higher density residential developments. This area is surrounded by up market low density residential developments and any new development should be sensitive to the existing developments and should reflect a similar character.

The second strategic intervention area is located on the northern side of the intersection of the N4 and Solomon Mahlangu Drive (K69). A mixed land use area is proposed for this portion. The portion located south of the intersection should accommodate a high density residential development with supporting social and local retail services.

### Waltloo/Silverton

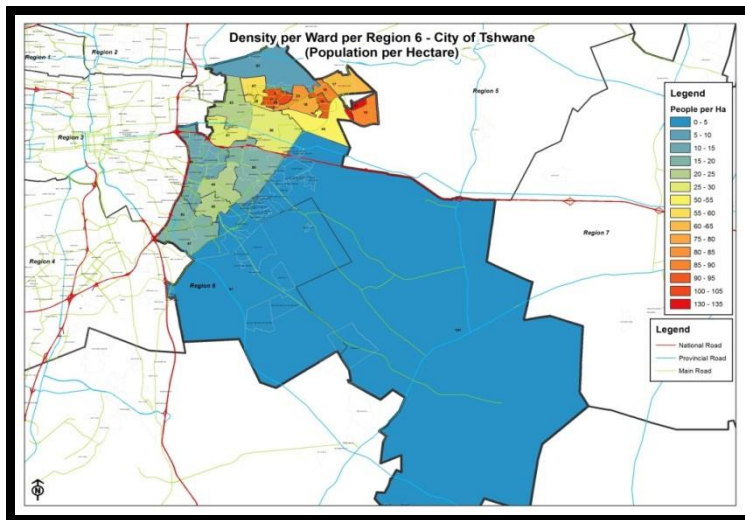
Presently, the main job opportunities within the region are located in Waltloo and Silverton (50 000 job opportunities). Despite this, Mamelodi, Eersterust and Nellmapius are subject to large-scale poverty and unemployment. The creation of more job opportunities is therefore a high priority and a focused effort should be put into attracting investment to these areas to create more job opportunities.

### 3.8.5 RESIDENTIAL CHARACTERISTICS

In terms of a city wide perspective the region has the following residential characteristics.

- The south eastern section of the region has a relatively low density character.
- Although densities in the south eastern section of the region are relatively low, this part of the region has the highest percentage of group housing developments compared to any other region.

- There are however very few apartment blocks in the southern section of this region.
- The region accommodates most of the city's homes for the aged.
- The region is subject to high development pressure.
- Virtually all areas have developed up to the old border of the Tshwane municipal area. The only areas available for development in the south eastern section of this region are the Willow Glen Agricultural Holdings and the Waterkloof Agricultural Holdings.
- This has led to development pressure in the old Kungwini area immediately to the east of the old Tshwane boundary with relatively high density development responding to the opportunities offered by the metropolitan area.
- Smallholdings attract the development of townhouse complexes, while the larger farm portions attract the larger low density residential developments, many of which are developed as lifestyle estates.
- The area around Eerste Fabrieke Station has the highest density at 50,6 persons per ha in the entire metro.
- There are approximately 40 000 informal units in Region 6 and mainly in the northern section of the region; however these units are mostly situated on serviced stands.



Wards	Population	Ward area in Ha	Density per Ha	Dwelling Units	Average Household Size
6	17174	170	101.1	5420	3.2
10	39968	458	87.3	15792	2.5
15	19511	215	90.7	5181	3.8
16	21083	240	87.8	5807	3.6
17	40771	651	62.6	12742	3.2
18	24578	308	79.8	6271	3.9
23	21469	264	81.4	6041	3.6
28	17856	174	102.4	5332	3.3
38	9362	165	56.9	3350	2.8
40	62241	1174	53.0	23440	2.7
41	18416	696	26.5	6312	2.9
43	26157	1093	23.9	6832	3.8
44	18094	798	22.7	6874	2.6
45	11122	520	21.4	3695	3.0
46	20701	1783	11.6	7821	2.6
47	16408	915	17.9	5814	2.8
67	20642	370	55.8	6020	3.4
83	12097	720	16.8	4553	2.7
85	34627	1741	19.9	13626	2.5
86	43585	1479	29.5	12908	3.4
91	40480	17162	2.4	14465	2.8
93	17785	2199	8.1	5416	3.3
97	21060	160	131.6	7844	2.7
101	30369	55069	0.6	11039	2.8
Total:	605556	88524	6.8	202592	3.0

### 3.8.6 MOVEMENT AND TRANSPORT SYSTEM

#### 3.8.6.1 Road network and private transport

Mamelodi is located to the north of the railway line. The railway line divides the region into a northern and southern area.

The N4 is located in the middle of the region. This route plays an international role although it also serves the residential areas of Silverton and Meyers Park via a series of interchanges on the N4.

The K16 (Stormvoël /Tsamaya Roads) and Pretoria Road provide for east-west mobility while Water Meyer/ Waltloo- and Solomon Mahlangu Drive provide north-south mobility. However, only parts of K-16 are in place and total alignment needs to be built to add to regional accessibility.

North-south mobility is restricted, especially in the Mamelodi area.

It is proposed that the Moloto Road be extended southwards in this area to improve north-south mobility.

The extension of Lynwood Road to the east is problematic especially the sections east of Solomon Mahlangu).

Much development has taken place further to the east in the last decade and the road network development has not kept up with land development. This has resulted in severe congestion during the peak hours with a strong flow of traffic to and from the N1 in the morning and afternoon peaks respectively given the strong demand for transport to and from the south towards Johannesburg on the N1 and the R21.

The southern area of the Region, from Moreletapark, is not well served towards the CBD by the appropriate standard of arterial (Rigel and Lois/Dely) Roads.

There is a lack of North-South link roads in the region. Sufficient east-west roads exist due to the historic roll and function of the CBD.

#### 3.8.6.2 Public transport

1007

##### Rail

The northern section of the region is well served by commuter rail with an east-west commuter line and stations from Mamelodi in the east, through Hatfield to Pretoria Station. The section of rail between Hatfield and Koedoespoort will be served by the new rolling stock of PRASA as from 2016. The southern and eastern sections of the region are not served by rail. The proposed Gautrain extensions will possibly solve this problem.

##### Road based

The northern sector of the region is heavily reliant on bus and taxi services to transport commuters to, from and throughout Tshwane.

The population residing in south eastern section of the region falls within the middle to high income group and currently relies on private vehicles for commuting purposes. Workers working in this area rely mainly on taxis, and to a lesser extent buses, to reach the workplace.

Very limited facilities for public transport exist in the southern section of the region. Taxis transport passengers to and from Menlyn Centre. There is a demand for taxi holding areas in this region while there are no significant formal facilities available.

### 3.8.7 SERVICE INFRASTRUCTURE

Bulk water supply is adequate throughout the region except for the undeveloped parts of Nellmapius and Willow Park/ Willow Brae. The capacity of water delivery in Koedoespoort, Waltloo, Silverton, Murrayfield, Waverley and Weavind Park is insufficient. Except for informal settlements, the region is served by waterborne sewer.

The southern portion of the region is generally well provided with engineering service infrastructure. The adjacent old Kungwini area and development pressure in this area challenges the rate at which bulk infrastructure can be provided to accommodate expansion in these areas.

The burden to construct infrastructure is generally placed on private developers with agreements between the municipality and such developers leading to the expansion of the municipal service network.

The provision of bulk infrastructure could be used by the municipality to direct development, but this opportunity is often missed due to budget constraints.

The challenge in terms of service provision is to phase development in the adjacent old Kungwini area through bulk services. Further a large number of developments have been approved without the necessary bulk infrastructure in place.

Bulk infrastructure is, however, the key instrument to achieve strategic objectives of the municipality in this instance and to direct densification proposals. Higher densities should only be allowed once services have been sufficiently upgraded to effectively support proposed densities.

### 3.9 KEY ISSUES AND S.W.O.T ANALYSIS

In order to determine the key issues and development opportunities for the area a S.W.O.T. analysis for the region was done.

#### 3.9.1 STRENGTHS

- The region enjoys good regional accessibility via the N4, N1 and R21 routes.
- The region offers good quality residential opportunities.
- The region accommodates a number of well -developed nodes.
- The region has access to private sector investment.
- Good rail infrastructure in the northern part of the region.
- The region has a strong industrial sector with job opportunities at Waltloo, Silverton, East Lynn and Koedoespoort.

#### 3.9.2 WEAKNESSES

- Poor internal linkages and traffic congestion. Limited access to first order road system.
- Poorly developed public transport facilities, with no rail services in the south.
- Too few interchanges especially on the N4 on the first order road network to effectively benefit the region.
- Poor linkages to the north and south.
- Poverty, in the northern section with more than a third of the population having no income at all.
- Uncontrolled development in the eastern section (Old Kungwini area).
- Large estate and retail developments that are currently not economically viable and that have only developed partially due to the economic recession

#### 3.9.3 OPPORTUNITIES

- The introduction of a rail or Bus Rapid Transit route in support of the promotion of public transport in the region opens many opportunities for focused development.
- The utilisation of the development energy and momentum associated with the Menlyn node together with the CSIR node provides opportunities for development.
- The Koedoespoort Transnet land is an equally strategic location and could possibly accommodate a significant number of residential units in a mixed use environment.
- New development opportunities along the N4 corridor.
- No suitable land to accommodate expansion of Mamelodi will require re-development and urban re-generation projects.

#### 3.9.4 THREATS

- No suitable land to accommodate expansion of Mamelodi.
- Lack of private sector investment in low income areas.

- Traffic congestion could lead to the “choking” of the southern areas, which could push economic development away from the region to less congested regions.
- Uncontrolled and uncoordinated development in the old Kungwini area, placing pressure on the internal movement system and engineering services of the region.

### 3.9.5 ROLE AND FUNCTION

The metropolitan role and function of the region is to:

- To provide residential opportunities all income groups and to accommodate new residential development in a sustainable form.
- To provide tertiary sector job opportunities in well-developed nodes.
- To ensure the conservation of regional open space systems.
- It provides residential opportunities for low income communities in the north-eastern section of the region and caters for higher income communities in the southern section of the region.
- It holds as a resource large strategically under developed land parcels, which could in future accommodate effective focused development.
- The northern section of the region is well served by rail services on the Ring Rail system and should therefore play an important role in accommodating higher density residential uses and economic activity around the stations.

### 3.9.6 DEVELOPMENT TRENDS IN REGION 6

Currently about 80 000 m<sup>2</sup> retail area is under construction in nodal areas in Region 6. Between 2012 and 2016 about 120 00 m<sup>2</sup> office space was developed in the nodes and corridors in Region 6. Currently a further 100 000m<sup>2</sup> is under construction mainly in the Menlyn node. In terms of the residential densification most of the development was in the densification corridors and nodal areas as prescribed in terms of the RSDF. These trends are expected to continue given the application received.

### TRENDS IN NODES

The Menlyn node is growing at a rapid pace mainly due to the Menlyn Main Development. The Menlyn Main precinct will consist of mainly, offices, retail space, entertainment and residential development. Menlyn Main is regarded as “Africa’s first Green City”. The Menlyn Main development forms part of the core area of Menlyn as described in the. Menlyn Node and Surrounding Areas: Spatial Development Framework 2012. This development will consist of 320 000m<sup>2</sup> mixed use development once completed. These developments will strengthen the nodal concept and lead to the clustering of mixed uses such as higher residential uses in the future.

### TRENDS ALONG CORRIDORS

A large number of Offices were developed along Lynnwood Road between Rubida Road and Simon Vermooten Road. Most of the development was on the Southern side of Lynnwood Road. The development trend can be contributed to the proposed BRT Line 2 C that is to be developed in the next 3 years. The developments have developed according to the guidelines as set out in the urban design principles applicable along BRT routes. Other mixed uses such as show rooms and limited retail also developed along Lynnwood road between 2012 and 2016. This can also be seen as the reaction of the market towards the proposed BRT line 2 C. Substantial development has taken place along Solomon Mahlangu Avenue between 2012 and 2016. The development mainly took place between Lynnwood Road and the old Bronkhorstspuit Road (Pretoria Road).

### TRENDS IN PREVIOUSLY DISADVANTAGED AREAS

Three malls have been planned for the Mamelodi area and at least 2 are expected to be developed in the next 5 years. The City is exploring the redevelopment of old hostels into bachelor units as opposed to two and three bedroom units, which do not meet the needs and affordability levels of hostel residents. The City will invest over R50 million in developing 200 affordable rental units in the Mamelodi area by June 2016. In addition, in conjunction with the Gauteng Department of Human Settlements, a total budget of R60.5 million will be spent to develop 550 affordable rental units in Nellmapius Extension 22.

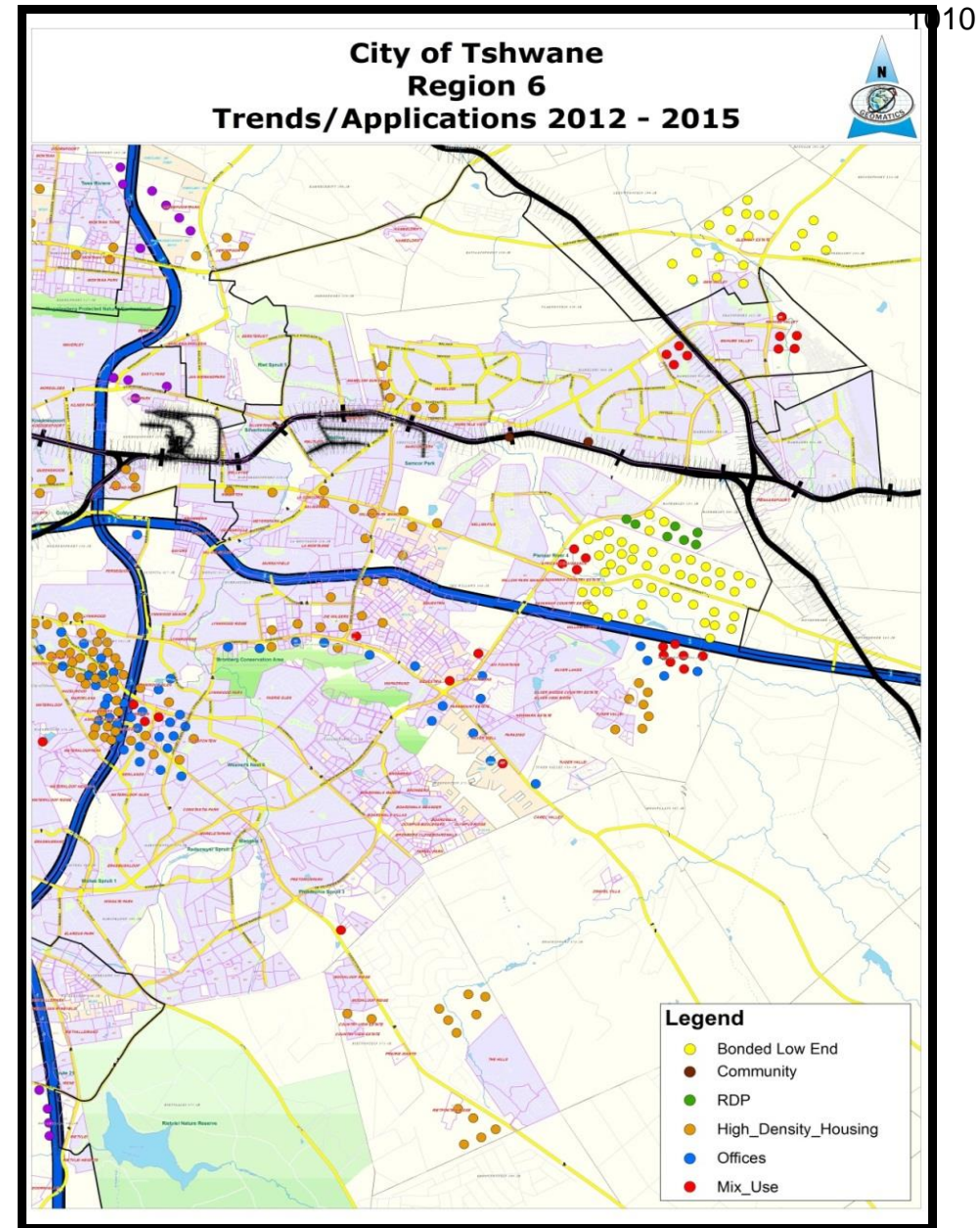


## TRENDS IN SUBURBAN AREAS

The suburban areas in Region 6 have not experienced much change except for the areas of influence of the proposed BRT line and stations in the Region. Development is also taking place on the urban edge of Region 6 in the form of low density residential estate developments. These estates are private car orientated developments with limited public transport available. Estates that are developing on the urban edge in Region 6 are around Silverlakes, Hazeldean and the Hills development.

## TRENDS IN RELATION TO SPATIAL PLANNING

The majority of the development in Region 6 took place in the nodes and corridors as prescribed in the spatial plans for the Region. The only exceptions are developments on the urban Edge that were previously approved by other authorities and before the approval of the RSDFs and MSDF during 2012.



## PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK

### 4.1 INTRODUCTION

Various land use management principles and policies have previously been used to direct development in the Region. The main development constraint of the region is the poor secondary road network, which leads to major congestion during the peak periods. The development concept includes proposals to alleviate congestion on the second order road network, by promoting higher densities around nodes along the major roads

Region 6 has a very poorly developed public transport system.

The principles of Residential densification in accordance with the Densification and Compaction Strategy are supported in as far as it is compatible with the existing residential character. Focused densification in nodal areas at high densities and densification along major public transport routes as medium development densities are proposed. However, areas for strategic intervention are the main focus of densification efforts.

The strengthening of existing nodes and the introduction of new nodes at strategic areas in the region forms part of the development concept. Nodal concentration as opposed to linear development is supported as it facilitates a more effective public transport system, through the creation of economies of scale.

The ecological and recreational value of the Magaliesberg Mountain Range, Rietvleldam and the Bronberg conservation area should be maintained. Development (if any) in these areas should be done in accordance with the Tshwane Open Space Framework. A strong conservation focus must be introduced to curb the threat of land invasions on council land and destruction of sensitive areas.

The east-west linkage of the region must be improved and linkage with Region 2 must be upgraded.

In the northern part of the region, the north- south linkage of the region must be improved.

### 4.2 METROPOLITAN NODES / TRANSPORT ORIENTATED DEVELOPMENT NODES (TOD)

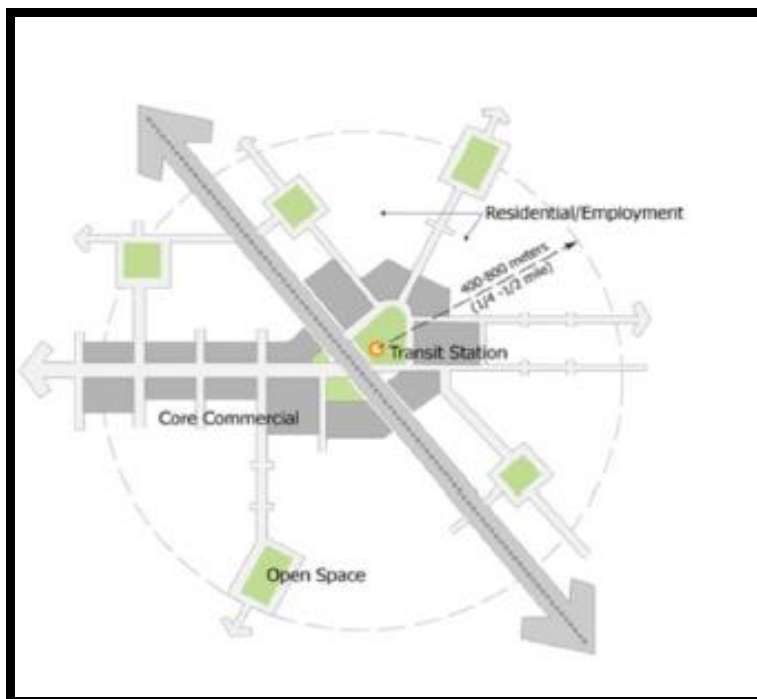


The Metropolitan Spatial Development Framework (MSDF) proposes a number of Metropolitan Cores / Transport Orientated Development and Urban Cores. The Tshwane Retail Strategy is also applicable to these nodal areas of metropolitan importance.

Metropolitan Nodes- these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Transit-oriented development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (train station, metro station, tram stop, or bus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs generally are located within a radius of Metres (500 to 900 m) from a transit stop, as this is considered to be an appropriate scale for pedestrians.

In terms of TOD it is important to provide a pedestrian –friendly environment, mixed use areas where the needs of the commuters and residents can be addressed in one place. Small business opportunities must be promoted around the stations and along the trunk route.

It is further important that the mix of landuses around the TOD should generate ridership at different times of the day. (Ideally 24 hours. According to the recent SAPOA publication Developing a Collective Approach to Mixed –use Development in Transit – Orientated Development Precincts “place to work, to live, to learn, to relax and to shop for daily needs should be located as close to the stop/station as possible. Transit non- supportive uses such as car sales, car washes warehouse, storage and low intensity industrial uses should be encouraged to locate further away from TODs.



The following core areas are highlighted in terms of the MSDF:

#### 4.2.1 MENLYN METROPOLITAN CORE (TOD)

The Menlyn precinct is a Metropolitan Core and besides the CBD is the strongest node of the Metropolitan area. This node is regarded as a Transport Orientated Node due to the three BRT stations planned in the node and other public transport options available in the node. The Menlyn Shopping Centre, Menlyn Maine and surrounding office parks, motor city, including the Water Glen Shopping Centre and Oberon Park office area has a cumulative floor area in excess of 1 200 000 m<sup>2</sup>. Infill development to accommodate high intensity mixed land uses up to January Masilela Drive as well as the provision of high density residential should complete this metropolitan node.

In addition to the above it is proposed that areas surrounding the node be considered for provision of higher density housing.

The upgrading of the road system around the node including a new interchange at the N1, Garsfontein Drive has unlock the western side of the N1 which include parts of the Ashlea Gardens area for development (Region 3). Residential densification should be encouraged in this mixed use area.

#### 4.2.2 MAMELODI URBAN CORE (TOD)

The MSDF indicates an urban core in Mamelodi which includes Solomon Mahlangu Precinct, T Section and Eerste Fabrieke Precinct. Thisese nodes are is regarded as a transport orientated development Nodes (TOD)

The focus of this core is on the provision of social facilities, higher density residential development and provision of a public realm.

The Urban Core is characterized by combined existing and latent retail development of approximately 80 000 m<sup>2</sup>, significant public



transport facilities and the future Regional Magistrates Court Complex for the Region.

The nucleus of the existing Solomon Mahlangu Precinct is the Solomon Mahlangu Heritage Square, retail development and the Municipal offices.



Private investment related to the achievement of above principles should be encouraged.

- MAX City to the north- east should be included as an emerging urban core. It's location on Hans Strydom Drive (Solomon Mahlangu) (K69) on the north south linkage through the Magaliesberg Mountain, at the link with Tsamaya Avenue is of strategic importance. The existing development has latent rights of 18000 m<sup>2</sup>. we are sitting with approvals for around 90 000m<sup>2</sup> retail with potential of private residential development with supporting higher densities and variant housing typologies. This node is regarded as a transport orientated development Node (TOD) due to the future BRT stations at the node.

- Future high density residential development is identified for the areas within a one to two km radius surrounding the Max City development and the stations at Mamelodi Gardens, Greenview and Pienaarspoort.
- The strategic vacant area to the north of the Magaliesberg Mountain Range includes fourteen township extensions, known as "Gem Valley", "Glen way" and "Ramokgopha" development. This area proposes a mixed land use pattern with a focus on residential development.

#### 4.3 REGIONAL NODES / LOCAL NODES



The RSDF indicates a number of nodes (either existing or emerging) which are important on a regional and local level.

New nodes might develop on intersections of the new alignment of the K54 and major transport routes. The extension of existing, well located nodes should however be encouraged before the creation of new nodes. As in the case of existing nodes, it is proposed that higher density residential uses be introduced as part of the node. It should also include social and community facilities.

The framework does not indicate nodes smaller than 25 000 m<sup>2</sup>. It is assumed that a hierarchy of nodes will be located within neighbourhoods at points which are most accessible.

Typically community centers and neighborhood centers should include both commercial and social facilities, such as retail facilities, schools, professional offices and community facilities, where such facilities are absent in the surrounding area.

For these nodes to function properly they should form part of a hierarchy of nodes, directly related to the characteristics of the population it serves.

The hierarchy of retail centers as proposed in terms of the “Retail Strategy” should be applied to the region, subject to need and desirability within the region.

### Summary of strategy

**Renewal Strategy:** In many instances retail facilities have become outdate, the increase in passing traffic has created a problem and in many instances parking facilities are inadequate. The revitalisation, upgrade and improvement of these areas should be encouraged.

Once a particular location or structure is no longer viable for retail purposes it is recommended that the structure be demolished and converted for other uses. This strategy will be driven by the decrease in return on investment in a particular area, large vacancies and the reluctance of retailers to move into a particular area. Urban decay, poor locations and unsafe areas will be the main problems to deal with. This should also form part of a broader revitalisation strategy for areas experiencing urban decay.

A renewal or upgrade strategy should also be followed by shopping centre owners. In most cases shopping centres are in need of a minor upgrade/major maintenance overhaul at intervals of 5 to 7 years.

**Maintenance strategy:** In certain cases shopping centres have become outdate and routine maintenance no longer effective and the upgrading or the redevelopment of the centre imperative. A maintenance strategy will mainly be applicable in already built up areas.

**Expansion strategy:** The change and growth in consumer demand in a particular area as well as new retail offerings will ‘force’ landlords to expand their existing retail facilities or to include new retail types. This is especially applicable in the case of regional and super regional centres, but can also be relevant for existing business clusters.

Most regional centres continuously expand to make provision for internal growth and to accommodate new retail concepts or trends. Cognisance should be taken of this particular need. This growth will mainly be driven by the already proven success of a particular centre, its location and the needs of the market.

**Infill strategy:** In this instance reference is made to infill in already built up residential areas where retail has been lacking or undersupplied. This type of development will then capitalise on an existing market and will prevent major outflows from a particular area to other shopping destinations.

The most important infill gaps currently exist in the traditionally black urban areas, although it is not necessarily restricted to these areas. There is currently major interest in the development of shopping centres in these areas, and development in these areas should be encouraged. The developments range from small neighbourhood to regional (large community) centres.

It is important to note that once the area is sufficiently serviced, the Infill Strategy must be replaced by the Maintenance and Expansion Strategies, and where new growth occurs, the Follow-the-roofs strategy.

**‘Follow-the roofs’/ new growth areas strategy:** This strategy focuses on new growth areas and the provision of retail facilities once a certain threshold level of houses and disposable income is reached.

In the case of a ‘follow the roofs’ strategy, timing is of critical importance. Should a centre be built too soon the retail performance will be low and casualties, especially amongst the smaller tenants, will be high. Further



growth in an area should also be such that the trade area of the proposed centre will fill up sooner rather than later.

**Nodal strategy:** Nodal or urban core strategy is applicable where larger retail facilities will create agglomeration advantages for complementary retail facilities. Urban and Metropolitan cores are those nodes or urban centres that fulfil a city wide function. These nodes are not stagnant and will expand over time. It is important that these agglomeration nodal developments take place in close proximity of small to super regional centres. Different types of retail facilities are on offer and not all can be accommodated in a traditional shopping centre. The best locational advantages of these complementary retail facilities are in close proximity to the existing regional centres. Other types of retail nodes where agglomeration benefits could be created could also be established.

The agglomeration effect is created by the catalytic nature of regional centres. The node will grow to include a variety of facilities and to reach a stage where the required tenant mix reaches the necessary critical mass.

**Modal interchange strategy:** This type of facility depends mainly on the nature of the commuters, the area as well as the different transport modes used.

Land uses in these areas should be focussed on transport orientated developments, with retail focussing on convenience and day-to-day goods.

Higher density areas will therefore have a higher frequency of nodes in a smaller geographical area. The ideal locality of such nodes will have to be determined through retail studies taking into account all factors that could have a significant impact on the success of such a node.

To ensure that prospective applicants who intend developing retail facilities sufficiently address all aspects in their applications and are thoroughly briefed on all the requirements of the Municipality with regard to such developments, a pre-application consultation should be followed, where the following aspects will be addressed:

- Locational Requirements

- Urban Design
- Pedestrian movements (walkability)
- Parking requirements and layout
- Taxi ranks and public transport facilities
- Informal Trade
- Site development plans
- Retail and traffic impact studies.
- Impact on surrounding land uses

A feasibility study will be required for retail developments of greater than 4000 square metres.

#### 4.4 JOB OPPORTUNITIES

##### 4.4.1 MIXED USE AREAS

Job opportunities of the region are mainly contained in the nodes. The present main job opportunity areas of the region are:

- CSIR/ Technopark.
- Menlyn Node
- Atterbury Value Mart /Pick 'n Pay.
- Glen Fair
- Castle Walk/Armcor.
- Waltloo/Silverton/Samcor Park
- Boschkop/Lynnwood/ Graham Junction
- Lynnwood Bridge
- Lynn Ridge Mall

- Max City
- Denneboom
- The Grove
- N4 Gateway Industrial Park
- Hazeldean Node

Three future mixed use areas of strategic importance have been identified for Region 6.

The first being City Council owned land opposite the new Woodlands Boulevard Shopping Centre in Pretorius Park. This land is served by Garstfontein Drive and Devillebois Mareuil Drive, it is ideally located to accommodate mixed land uses comprising offices and a small percentage higher density residential developments. This area is surrounded by up market low density residential developments and any new development should be sensitive to the existing developments and should reflect a similar character. The site is located on the eastern municipal boundary of Tshwane and is almost on the urban edge. The availability of services is a major restrictive factor. The intensity of any development should also take into account the fact that it is not close to job opportunities and is not served by public transport facilities – therefore the scale of any development should be restricted. The site is affected by a flood line and portions thereof are regarded as environmentally sensitive. The principles contained in the Metropolitan Open Space Framework should be applied in the design of the proposed development.

The second strategic intervention area is the N4 Gateway, located on the northern side of the intersection of the N4 and Solomon Mahlangu Drive (K69) and will be served by the proposed new railway line and station. A mixed land use area is proposed for this portion. The portion located south of the intersection should accommodate high density residential development, with

supporting social and local retail services. Public and private investment opportunities can be focused in these areas.

#### **4.4.2 Waltloo/Silverton/ Samcor Park**

Presently, the main job opportunities within the region are located in Waltloo, Silverton and Samcor Park (47 000 job opportunities). Despite this, Mamelodi, Eersterust and Nellmapius are subject to large-scale poverty and high unemployment. The creation of more job opportunities is therefore a high priority for this area. A focused effort should be put into attracting investment to these areas to create more job opportunities.

#### **4.5 FUNCTIONAL ROAD CLASSIFICATION AND ACTIVITY MATRIX**

The movement system in an urban environment is literally the arteries of the city – without these linkages there can be no economy, no inter-relatedness, and no “life”.

Movement systems can be used to create access, structure settlements, and promote integration, diversity and mixed land use. Movement (flows of people, finance, goods) defines the energy networks of settlements. Accordingly, more continuous lines of movement represent planes of greater accessibility and, therefore, become the more desirable connection for intensive use. Significantly, the energy potential contained in lines of movement is released through stopping, not through movement. Different movement modes have varied patterns of stopping. Accordingly, they establish different rhythms of accessibility and the co-ordination of different modes enables certain points to be strongly reinforced.

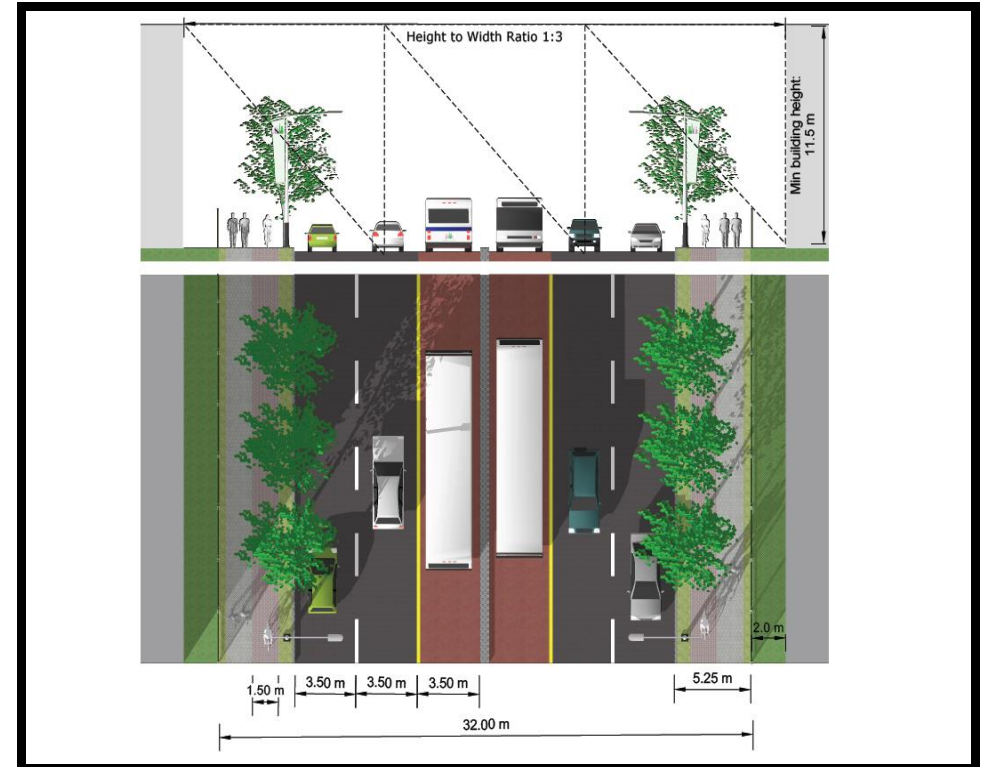
By creating a complex and diverse pattern of accessibility, all activities, both large and small, can naturally find a place within the structural system, depending on their need for accessibility and their ability to pay for it. Movement systems, therefore,

provide a powerful planning mechanism to bring about mixed, but broadly predictable, patterns of activity, provided activities are allowed to respond to them. Existing and future mass transport routes should also be integrated into this urban system.

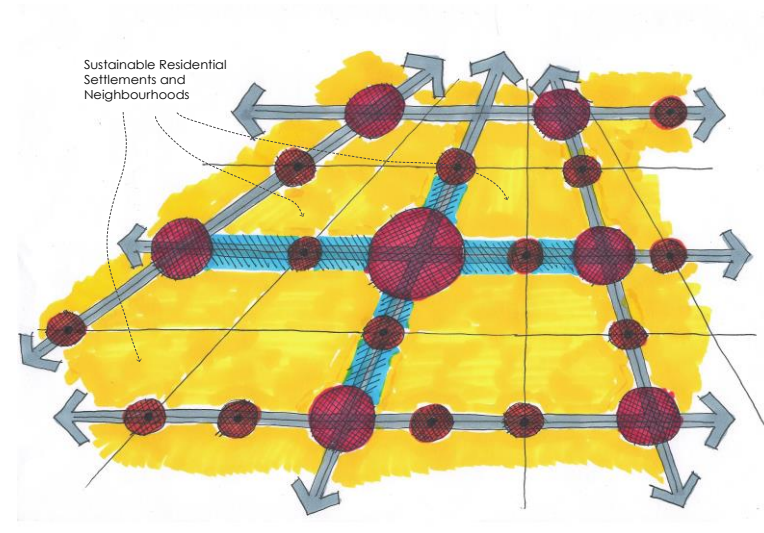
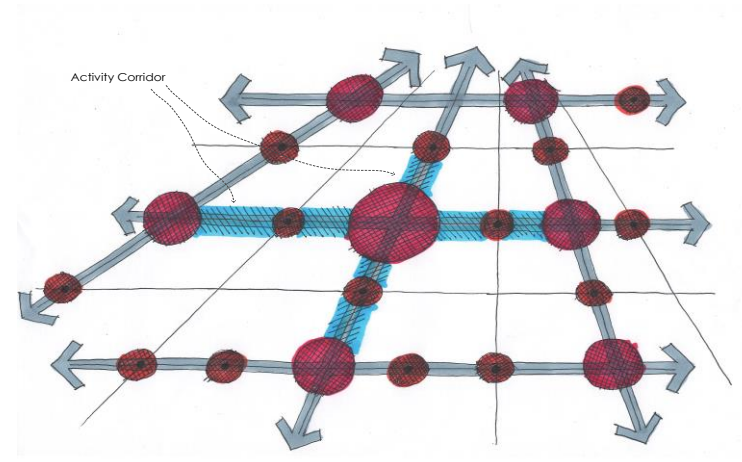
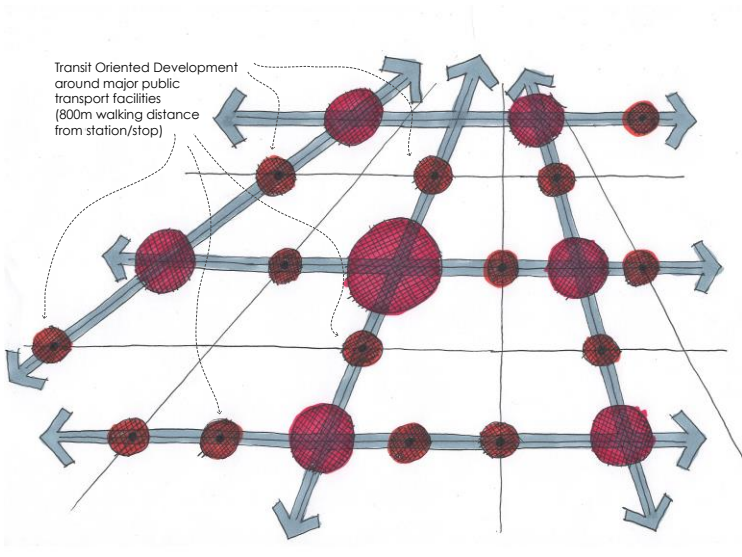
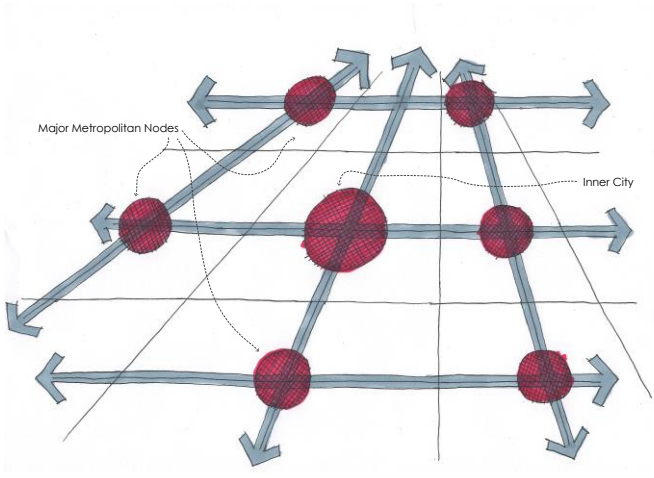
The movement system is an enabling feature of a city as it enables the free movement of goods and services through a region. Development trends are directly influenced by accessibility and therefore strategic planning with regard to movement is of utmost importance in the context of a growing metropolitan centre. Land use changes for the consolidation of erven adjacent to existing nodes in residential areas will be considered on merit. Erven adjacent to roads that link such nodes with mobility or activity function within a residential area may be considered on merit. The merit will be evaluated in terms of the guidelines as set out in this chapter.

However, development along more sections of the spines should only be permitted subject to suitable access which would normally mean from internal roads. Development along the spines should only be permitted subject to access management strategies to protect the mobility function of these roads.

**Transport Corridors** - For the purpose of this RSDF the routes are defined as the approved BRT routes within Region 6. They are regarded as the main public transport channels of the region. Public –transport orientated – with the prioritising of public transport and Non – Motorised Transport over Private transport. Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.






Spatial Concepts for Nodes and Corridors










- The interrelationship between a proposed functional road classification and an activity matrix is illustrated by the following table below:

Functional Road Classification	Land Use	Function and Design	Roads and Streets
<b>Highways</b>  <b>(Class I)</b>	<ul style="list-style-type: none"> <li>No Direct Access to land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Accommodate mainly national, regional and longer distance metropolitan trips.</li> <li>No traffic lights on these roads</li> <li>Access is restricted to the interchanges only.</li> </ul>	<ul style="list-style-type: none"> <li>N1 (Polokwane Bypass), N4 (Emalahleni Highway),</li> <li>R21 (Nelson Mandela Freeway south of Solomon Mahlangu,</li> <li>N4</li> <li>Proposed PWV 17</li> </ul>
<b>Mobility Spine</b>  <b>(Class II and III)</b> A Mobility Spine is an arterial along which through traffic flows with minimum interruption (optimal mobility). Much smaller than highways, Mobility Spines are usually made of two lanes of opposite vehicle flow.  It serves the purpose of inter-regional and metropolitan movement.	<ul style="list-style-type: none"> <li>Nodal Development at intersections.</li> <li>Mixed land uses at intersections.</li> </ul>	<ul style="list-style-type: none"> <li>Little (exception) or no direct access to land uses adjoining the spine. Access is usually through side roads and service roads.</li> <li>Involves inter-metropolitan and inter-regional routes</li> <li>No on street parking permitted</li> <li>Very few traffic lights</li> <li>Restricted pedestrian movement</li> </ul>	<ul style="list-style-type: none"> <li>Stormvoël Road / Tsamaya Avenue (K-16 planned extension)</li> <li>Pretoria Road (Cnr Watermeyer and Wlaltloo) / Bronkhorstspuit Road</li> <li>Lynnwood Road (K34)</li> <li>Atterbury Road (K40) (east of January Masilela Drive)</li> <li>Garstfontein Road (K50)</li> <li>Delmas Road (R50)</li> <li>Solomon Mahlangu Drive (K69)</li> <li>Meiring Naude Road</li> </ul>
<b>Transport Corridors</b>  <b>(Class II and III)</b>	<ul style="list-style-type: none"> <li>Mixed land uses at BRT stations.</li> <li>Mixed uses along sections of trunk route. Mixed uses to front onto trunk route.</li> <li>High density residential along corridor</li> <li>Nodal</li> </ul>	<ul style="list-style-type: none"> <li>Public –transport orientated – with the prioritising of public transport and Non – Motorised Transport over Private transport.</li> <li>Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate.</li> <li>Road space reallocation aiming to re-balance provision between private cars and more</li> </ul>	<ul style="list-style-type: none"> <li>Lynnwood Road (K34)( January Masilela Drive to Simon Vermooten)</li> <li>Atterbury Road (K40) (N1 to January Masilela Drive)</li> <li>January Masilela Drive (Atterbury to Lynnwood)</li> <li>Simon Vermooten Drive</li> <li>Tsamaya Avenue (Entire road up to Max City)</li> </ul>



Functional Road Classification	Land Use	Function and Design	Roads and Streets
	development with a mixed use character (developments concentrated at intersections and around BRT stations)	sustainable modes such as no motorised transport and the BRT. <ul style="list-style-type: none"> <li>Limited accommodation for private cars on the Corridor.</li> <li>High accessibility for pedestrians.</li> </ul>	
<b>Mobility Roads</b>  <b>(Class III and IV)</b> Primarily serves intra-metropolitan traffic. While this route is characterised by through traffic, trends indicate pockets of mixed use developments locate alongside. It serves as the most important linkages between the Metropolitan Activity Areas (Capital Core/Metropolitan Cores/Urban Cores/Specialised Activity Areas)	<ul style="list-style-type: none"> <li>Medium to high density residential as per density map</li> <li>Nodal development with a mixed use character</li> </ul>	<ul style="list-style-type: none"> <li>Limited direct access permitted (not frequent)</li> <li>Services roads to enhance access opportunities</li> <li>On street parking also permitted close to major intersections and in the vicinity of significant nodes only</li> <li>Plays a collector and distributor function though trips are of a short distance</li> <li>Pedestrian movement along the route in various parts</li> <li>Public transport very important along Mobility Roads</li> <li>Provide public transport facilities</li> </ul>	<ul style="list-style-type: none"> <li>Hans Coverdale North and East</li> <li>Alwyn Street and proposed extension to K69</li> <li>Cussonia Road</li> <li>Shabangu/Maphalla/Watermeyer/Waltloo Road/ Lynnburn Road</li> <li>Love Drive</li> <li>Silverlakes Road</li> <li>Adcock/ Jacobs</li> <li>Lynnwood Road</li> <li>Atterbury Road</li> <li>Garsfontein Road (between proposed K54 and Matroosberg)</li> <li>De Villaboys Mareuil Drive/ Olympus Drive</li> <li>Piering Road</li> <li>Boeing Drive</li> <li>Rigel Avenue</li> <li>January Masilela Drive (See Transport Corridors)</li> <li>Dely Road (Sections)</li> </ul>
<b>Activity Spine</b>  <b>(Class III and IV)</b> These streets are characterised by slower moving traffic due to the nature of activity along the street (activity is of paramount importance, mobility is compromised to allow the activity). The street provides a focus	<ul style="list-style-type: none"> <li>Mixed uses along the spine</li> <li>Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>Urban design guidelines important</li> </ul>	<ul style="list-style-type: none"> <li>Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate</li> <li>High accessibility to land and normally only gaining access from a service road.</li> <li>Mixed land uses along</li> </ul>	<ul style="list-style-type: none"> <li>Portions of Tsamaya Avenue (Mixed Use)</li> <li>Proposed re- alignment of Tsamaya Road with link with Pretoria Road (Mixed Use)</li> <li>Garstfontein Road (west of Matroosberg)(Offices)</li> <li>Portion of Pretoria Road between Waltloo</li> </ul>

Functional Road Classification	Land Use	Function and Design	Roads and Streets
for various non-residential and medium to higher density residential developments that create a vibrancy and specific identity.	to guide the development along the spine.	<ul style="list-style-type: none"> <li>service roads</li> <li>High density development with mixed uses must be promoted in suitable locations along these routes. On-street parking where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>Road/Watermeyer Street up to James Street</li> <li>Lynnwood Road (Between N1 and K54) Offices and High Density with commercial uses at intersections)</li> <li>Solomon Mahlangu (between Lynnwood and Bronhorstpruit Road ) (commercial uses)</li> <li>Shilovane</li> <li>Margaritha/ Catharina/ Albertus Road (Meyerspark)</li> </ul>
<p><b>Activity Street</b> </p> <p><b>(Class IV and V)</b></p> <p>Local collector road within suburb, characterised by small scale (in keeping with the existing character of surrounding residential developments) local economic activities and social amenities</p>	<ul style="list-style-type: none"> <li>Low-intensity mixed land uses with a focus on community services and economic opportunities</li> <li>Low to medium density residential developments</li> <li>Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>Urban design guidelines important to guide the development along the street.</li> </ul>	<ul style="list-style-type: none"> <li>Characterised by low speeds (60km/h and less)</li> <li>Mixed land uses along service roads</li> <li>Must be provision for pavements</li> <li>Parking on site</li> <li>These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>Love Drive (parts of)</li> <li>Rubenstein Drive (only if access can be provided)</li> <li>Wekker</li> <li>Jacqueline Drive</li> <li>Windsor</li> <li>Part of Corrobay</li> <li>Part of St Joseph Avenue at junction with Hans Coverdale Road</li> <li>Shabangu Avenue (parts of)</li> <li>Certain sections of Glenwood Road</li> <li>Ingersol Road</li> <li>Roslyn Street</li> <li>Certain sections of Dely Road, Lois Avenue, Cliffendale Drive, Old Farm Road, Olympus Drive and De Villebois Maréuil Drive</li> <li>Portions of Selikats Causway north of Atterbury Road.</li> <li>St Bernard Street</li> <li>Boeing Street Service Road</li> <li>Barnard (South of Delmas Road)</li> </ul>

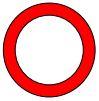
Functional Road Classification	Land Use	Function and Design	Roads and Streets	1022
			<ul style="list-style-type: none"> <li>January Masilela Drive Service Road (certain sections)</li> <li>Mendelssohn (certain sections)</li> <li>Isie Smuts (certain sections)</li> <li>Spantou Street</li> <li>Dykor Street</li> <li>Rossouw Street (South of N4)</li> <li>Libertas/ Stellenberg</li> <li>Rubida</li> <li>Vergelen</li> </ul>	
<b>Residential collector</b>  <b>(Class IV a and b)</b> Local collector road within suburb, characterised by small scale social amenities	<ul style="list-style-type: none"> <li>Low-intensity community services and as per Council consent</li> </ul>	<ul style="list-style-type: none"> <li>Characterised by low speeds (50km/h and less)</li> <li>Must be provision for pavements</li> <li>Parking on site</li> </ul> These streets serve primarily local traffic accessing the served area and feeds into arterial roads	<ul style="list-style-type: none"> <li>As per map</li> </ul>	
<b>Residential collector</b>  <b>(Class V)</b> Local road within suburb	<ul style="list-style-type: none"> <li>Residential Street</li> <li>Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>Characterised by low speeds (50km/h and less)</li> <li>Parking on site</li> <li>Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>As per map</li> </ul>	

## 4.6 DEVELOPMENT GUIDELINES

### LAND USES

The desired activity's along the activity corridors, streets and nodes is illustrated by the following notation and definition must be used as a guideline and must be read in conjunction with the Nodes and Corridor Map at the end of this section.

## TRANSPORT-ORIENTATED DEVELOPMENT (TOD)



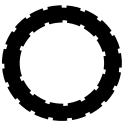
Transport Orientated Development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (e.g. train station, metro station, BRT station, or bus/Taxi Terminus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs generally are located within a radius of metres (500 to 700 m) from a transit stop, as this is considered to be a convenient distance for pedestrians.

## NODE



A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport nodes such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

## EMERGING NODES



Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision

of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

1023

## RETAIL



Areas of concentration of mixed land uses with the focus on retail

## MIXED USES



Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional etc. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. A mixed-use could refer to retail at street level, institutional on the floor above and residential on the upper floors, or only use per erf. Principles regarding retail, commercial and industrial uses / rights are still applicable as indicated in this document. Mixed land use in an industrial area could include industry, commercial and retail uses.

## OFFICE USES



Means land and buildings that may include office, retail industry, small scale place of refreshment, fitness centre, hairdresser, nail bar, medical consulting rooms, medical workshops such as, dental technician, prosthetist, orthotist, pathologists, optometrist technician, or for other businesses such as inter alia beauty salon, pet salon, beauty/health spa, place of instruction, uses subservient to the main use. Uses must be compatible to the surrounding area and must focus on serving the local community. The merits of the land uses to be determined in line with the character of the activity street and/or area.

## INDUSTRIAL USES



Light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

## GENERAL PRINCIPLES IN NODES, CORRIDORS AND MIXED USES AREAS

One of the main concerns for non-residential development and high density development within residential areas is the compatibility and interaction of land use changes to the abutting residential uses. The existing characteristics of an area and street plays an important role in the determination of land uses that is considered appropriate and are compatible with the residential component. The permitted land uses shall only be accommodated along the street up to the mid-block line of blocks running parallel to a street or adjacent service lane.

The following general principles are applicable:

- Encourage development characteristics that spread economic impact (Spluma, Objective, promote economic and social inclusion).
- A “walkable” environment- place commercial, housing, jobs, parks and civic uses within walking distance of the community and transit stops ( National Development Plan, GSDF, Principle)
- Encourage infill and redevelopment along activity streets corridors within existing neighbourhoods.
- A mix of residential, retail, commercial and community uses needed along activity corridors and streets. (Spluma, Principle 7(a) Spatial sustainability).
- Activity streets must be frontage streets, with emphasis on public interface.
- Locate jobs, retail and commercial near residences to reduce car dependence. (National Development Plan, GSDF, Principle)
- Encourage active interfaces between buildings and streets.
- Larger uses should locate at the edge of the circle allowing a fine grain mix of use at the centre
- Residential and non-residential uses combined within the same or adjacent blocks.
- Encourage vertical mixing of uses.



Source: City of Tshwane; West Capital Urban Design Framework 2014

The following criteria shall determine if a particular erf is suitable to accommodate a permitted land use change:

- Acceptable safe access possible
- Adequate on-site parking available
- Adequate space available for landscaping purposes
- Acceptable impact on residential component
- Site characteristics
- Availability of Bulk services and Infrastructure.

The following Development Guidelines shall be used:

### FAR

- Shall be determined by erf size, parking to be provided on site and the influence of privacy with regard to the surrounding residential properties.

### HEIGHT

- 2 storeys or higher, depending on the locality and surrounding land uses and in accordance with the relevant town planning Scheme.



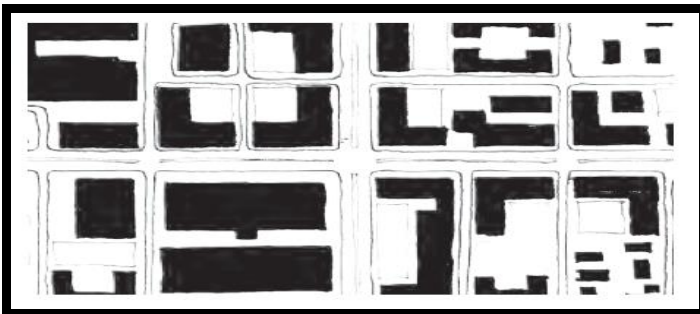
- Relate building height to street width and intended character. Urban centres are characterised by a strong sense of enclosure with street spaces that are generally lined by buildings set along the front property boundary.
- Solar access to adjacent structures, situated to the south of a property to be developed, shall be protected through as far as possible from the adjacent structure.



Source: City of Tshwane: Centurion CBD Framework, 2013

- To ensure no overlooking, the following is applicable:
  - No balconies shall be established on the side of the building abutting a residential property.
  - Windows shall either be located at such height or distance from the boundary of a residential property, that they do not enable overlooking.

#### BUILDING PLACEMENT



- Building position is important in the development of the complete and liveable street concept.
- Buildings must be placed as close as possible to the street boundary.
- Building should be staggered along street boundaries in order to break long street frontages.
- Orient buildings to sidewalks
- Place buildings at the sidewalk (perimeter blocks)
- Street and building configuration should be designed to create vistas, or to terminate views with a landmark feature, building, or public space.?
- Buildings at intersections within the corridor and activity street should provide for landmark features.

#### BUILDING LINES

- Buildings must be placed as close as possible to the erf boundary adjoining streets.
- Adequate side building lines should be imposed to protect the neighbouring residential component.
- The area within the building line should be used mainly for parking purposes and landscaping. Minimum 16% of the area should be covered with soft surfaces.

#### PARKING

- All parking shall be accommodated on the erf
- No off-street parking shall be allowed.
- Off street only in TOD.
- Carports shall be located in such a manner that it is not visible from the street
- Parking relaxations will be considered in TOD and Corridors.

- Parking ratios per area and per application.
- Developers should determine their own parking ratio in certain areas.
- Discouragement of the use of private car must be reflected in the parking ratio's
- Reduced private parking
- Shared parking can be allowed regardless of whether the zoning ordinance requires any off-street parking, or whether public parking is available.
- Parking should be provided sub-surface as far as possible.

### PHYSICAL BARRIERS

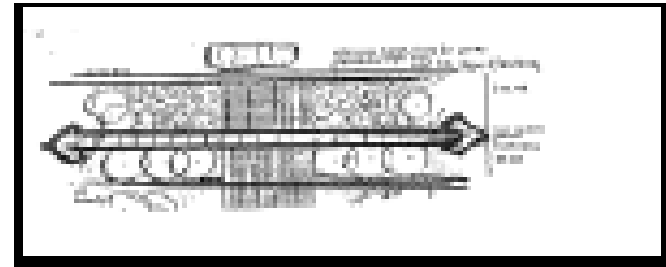
- Walls abutting neighbouring residential properties shall be maintenance free on the side of the adjacent property and constructed in brickwork. The wall shall at least be 2,1m in height to offer more protection to the abutting residential activity. No prefabricated concrete walls are allowed
- A well designed and articulated boundary wall of brick should be constructed on the other boundaries of the site. No prefabricated concrete walls are allowed. The boundary wall should be minimum of 2 meters high and a maximum of 3,0 meters high and should be maintenance free on the side of the adjacent property;
- Physical barriers along the street boundaries shall be semi-transparent to enhance landscaping, architecture and aesthetics. Set back upper levels of tall buildings to help create a pedestrian scale at street level and to mitigate unwanted wind effects.



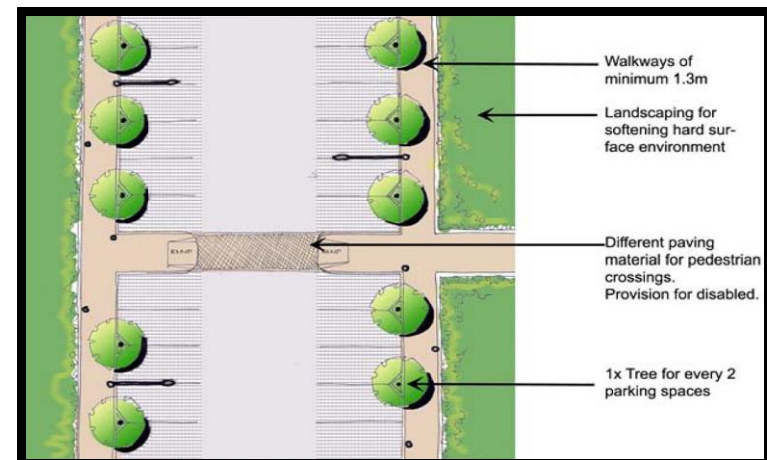
### LANDSCAPING

- Indigenous landscaping shall be incorporated.

- The road reserve between the erf boundaries and the street shall be landscaped in accordance with the landscape development plan. The landscaping should include design measures to prevent on-street parking and include a walkway (at least 2 m wide) to ensure pedestrian safety.



- One tree shall be provided for every two parking spaces.
- Soft landscaping shall form part of parking areas.



- Advertising must be as per Council policy and guidelines.

HEALTH MEASUREMENTS

- Air-conditioning units or compressors shall not be mounted to the exterior walls of buildings without the prior consent of the Municipality.
- Any requirements for air pollution-, noise abatement- or health measures set by Municipality shall be complied with to the satisfaction of the Municipality without any costs to the Municipality.
- All refuse areas and service yards shall be screened of with a solid wall and /or landscaping. Refuse areas shall be placed as far as possible from any residential property.

# Nodes and Corridors Map - Region 6



## Legend

Water Shed / Development Edge  
 Urban Edge 2013  
 CBD 35 km Radius  
 Gautrain Station  
 Proposed IRPTN  
 Railway  
 Proposed Railway  
 Proposed Station  
 Tourism Potential  
 Service Industry and Mini Storages  
 Landfill

## Highways

Existing  
 Proposed  
 Transport Corridor  
 Class 4 (non-residential)  
 Class 4 (Residential)  
 Mobility Spine  
 Existing  
 Proposed  
 Mobility Road  
 Existing  
 Proposed  
 Activity Spine  
 Existing  
 Proposed  
 Activity Street  
 Existing  
 Proposed

## Land-Use

Mixed Uses  
 Office  
 Airport  
 Campus  
 Future Regional Cemetery  
 Industrial  
 Educational  
 Mining  
 Cemetery  
 Local Nodes  
 Transport Orientated Development  
 Transport Corridor (BRT phase 1)  
 Emerging Nodes  
 Retail Nodes

## Community Service Centres

Community Service Centre  
 Human Settlement  
 Proposed Rural Service Centre  
 Rural Service Centre

## Critical Biodiversity Areas

Critical Biodiversity Area 1  
 Critical Biodiversity Area 2  
 Ecological Support Area 1  
 Protected Area (Formal)

## Roads Masterplan

**CLASS**  
 U1 Class 1, Primary metropolitan distributor  
 U2 Class 2, Metropolitan distributor  
 U3A Class 3A, District distributor  
 U3 Class 3, District distributor  
 U4 Class 4a, Collector (non-residential)  
 U4 Class 4b, Collector (Residential)  
 Class 5a, Local street (Non-residential)  
 Class 5b, Local street (Residential)  
 De-Classification\_U1  
 De-Classification\_U2  
 De-Classification\_U3  
 De-Classification\_U4a  
 De-Classification\_U4b  
 De-Classification\_U5a  
 Proposed Class 3A, District distributor  
 Proposed\_U1 Class 1, Primary metropolitan distributor  
 Proposed\_U2 Class 2, Metropolitan distributor  
 Proposed\_U3 Class 3, District distributor  
 Proposed\_U4 Class 4a, Collector (non-residential)  
 Proposed\_U4 Class 4b, Collector (Residential)  
 Proposed\_Class 5a, Local street (Non-residential)  
 Proposed\_Class 5b, Local street (Residential)

File Name: 20100908  
 Path: C:\Users\mshah\Documents\Projects\Region 6\Nodes and Corridors Map\Region 6 Nodes and Corridors Map.mxd (20/09/2010)







## 4.7 RESIDENTIAL

### Current City Form of Tshwane

- Apartheid left South Africa a Fragmented Spatial Framework
- Urban Sprawl and dysfunctional urban form.
- Low densities mean that public transport cannot benefit from economies of scale.

### Solutions for Tshwane

- Reverse the spatial patterns of apartheid.
- Plan for compact cities and transport corridors.
- Compact cities – more infill and multi –story developments, mix of land uses.
- Density must be public transport orientated.- focus on commuter Rail, Bus, Taxi, cyclists and BRT.
- Integrate land –use planning and transport planning.
- Reduce the need to travel.
- Public transport must be prioritised over private transport.
- Embrace BRT's monorails, NMT, Pedestrians.
- Disincentivise private car usage – reduce the number of vehicles on the road.

Residential development within Region 6 should be guided by the principles contained in the Tshwane Compaction and Density Strategy. The core principles of this strategy are:

- Density must contribute to the overall structure and functionality of the metropolitan area in that it takes place in a balanced, focussed, structured and meaningful way
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.
- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment

- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future
- Areas targeted for densification should be well served by social facilities such as education, open space, recreation etc. or should have the potential to be well served by social facilities
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Retain, enhance and encourage cultural assets
- Density's for old age homes and retirement centres, hostels and student accommodation will be evaluated on their own merits where location and accessibility to social infrastructure will play an important role.

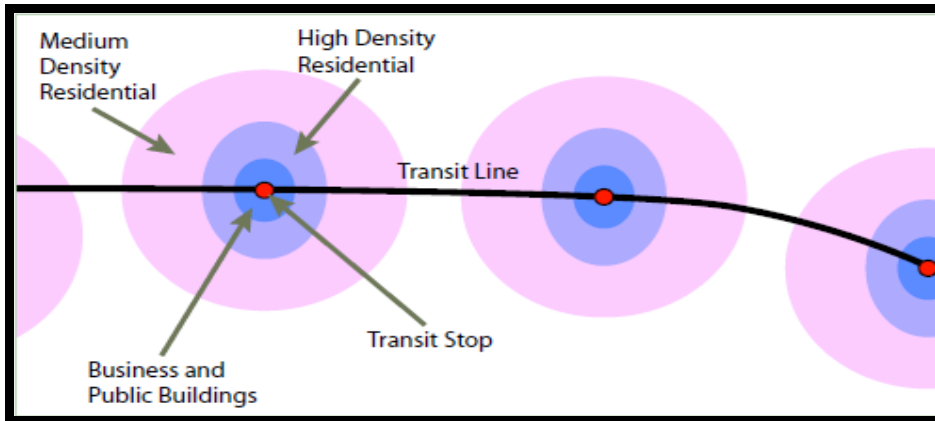
Another important underlying principle of the Tshwane Compaction and Density Strategy, is that higher density developments should not merely be dictated by density, but that design and typology considerations should be of critical importance, as these are the factors that in reality make either a positive or negative contribution to the overall quality of the environment in which they are situated. Density and compaction is not an end in itself, but a means to achieve an overall efficient, integrated and sustainable metropolitan area. Density proposals within Region 6 should therefore not be done for the sake of density, but to achieve a range of other goals, such as :

- increasing accessibility to public transport facilities
- creating the necessary population thresholds for economic growth and viable business development (especially small and medium sized enterprises) in specific areas
- minimising distances between home and work (i.e. integration of higher densities with employment opportunities)
- containing outward expansion of the urban footprint

The benefits of Density and Intensification :

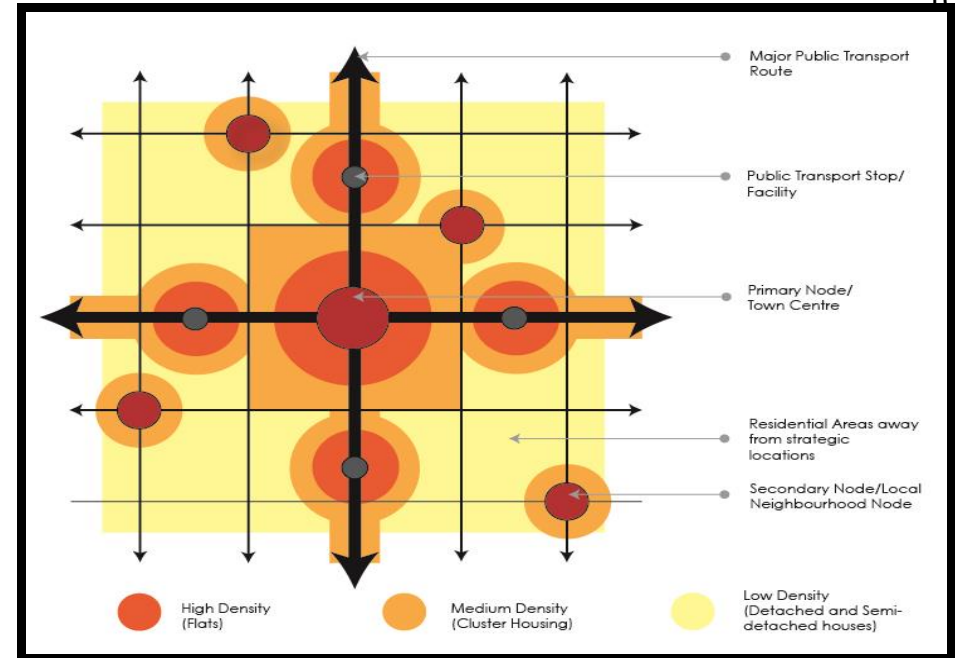
- **Concentrations of people** in areas of high urban activity
- Access of people to opportunity increase
- Population threshold increases which means that a viable market for business and transport is established
- Density is significant for the economic performance of a city
- **Urban efficiency**

- Travel distances and time
- Cost of Engineering Infrastructure
- Public transport becomes more viable
- High density assures the maximisation of public investments including infrastructure, services and transportation and allows efficient utilisation of land



The strategy proposes four key density zones, namely:

- Concentration Zones
- Linear Zones
- Suburban Densification Zones
- Low Density Zones



### Criteria for densification

Applications for densification shall be evaluated against the following criteria: proposed form of property, height, whether sufficient parking is available, privacy of adjoining owners, consolidation of stands and access, northern orientation, **character**, services available, and unit typology, size of the property, open space.

Densification throughout the city will still be in accordance with availability of services and geological conditions such as dolomite restrictions.

Refer to the density map for a schematic illustration of densifications; it is important to note that walking distances to public transport will be applied in the evaluation of density applications.

All densification applications should adhere to the above mentioned criteria and development guidelines as indicated as 4.6

#### 4.7.1 CONCENTRATION ZONES



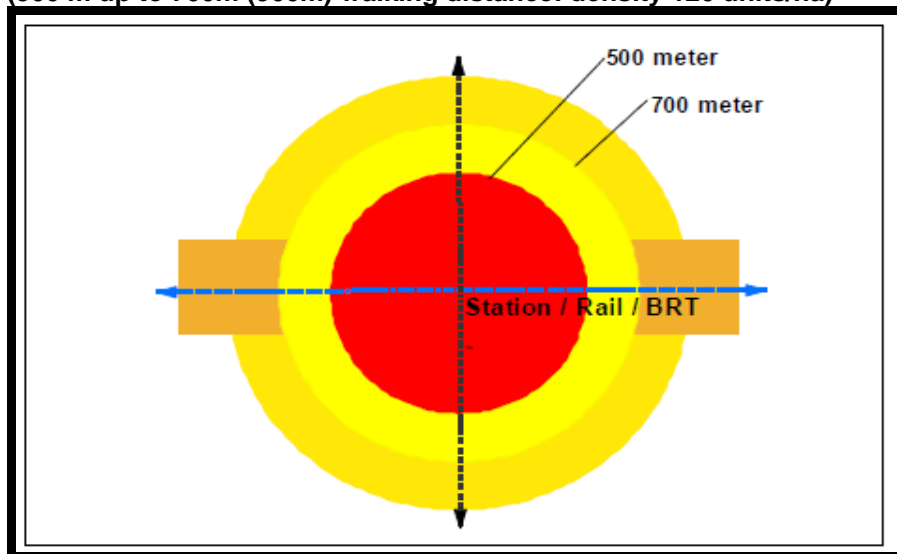
( Less than 500 m walking distance: density + 200 units/ha)

The **Concentration Zones** are the primary focus areas for high density residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within a 700m walking radius of a railway station or a major public transport node.



(500 m up to 700m (900m) walking distance: density 120 units/ha)

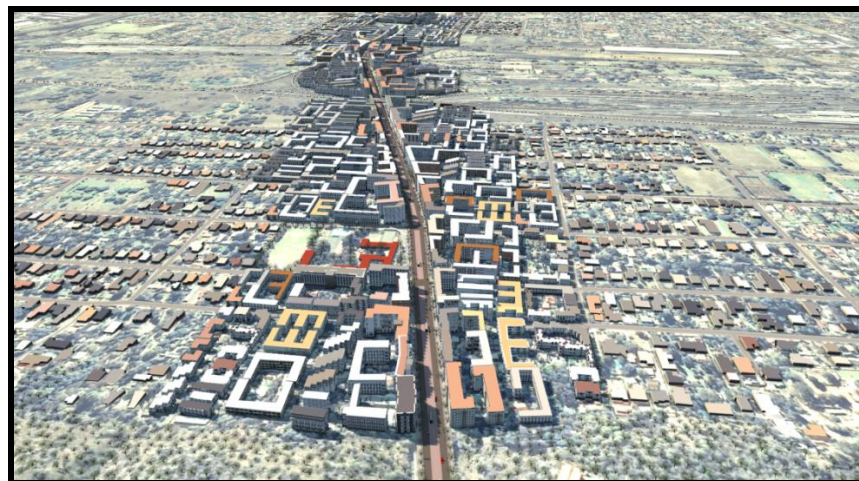


**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport

1032

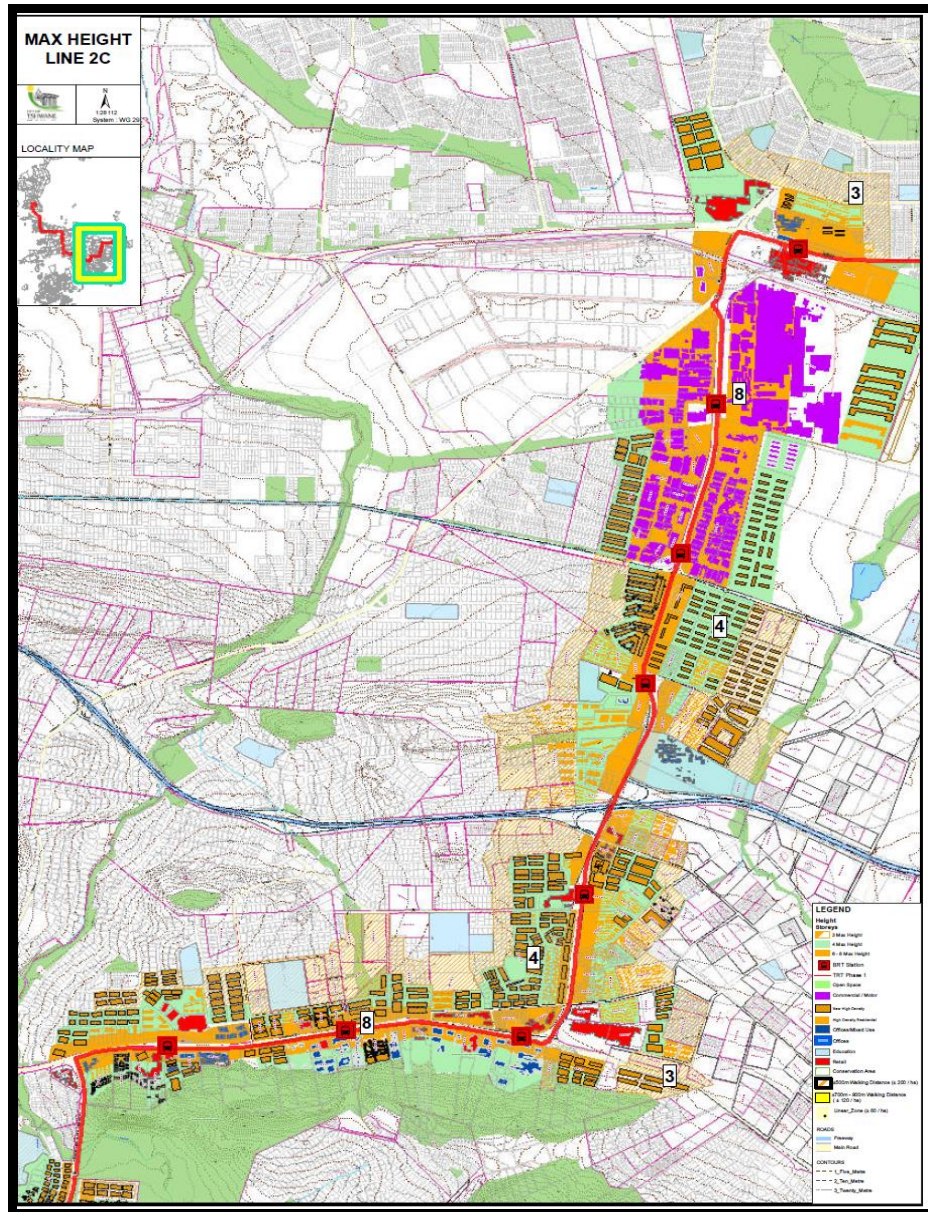
Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within an 700m walking radius of a railway station or a major public transport node. The areas around the existing Gautrain and PRASA railway stations and around the proposed BRT / ITPN stations have been earmarked for higher density transit promotion zones. Densification should take place within a 900m walking radius of a BRT / IPTN station. Densities of + 200 units /ha in nodes and around rail stations will be applicable for the first 500 m walking distance and up to 120 units / ha for the area between 500 m and 900 m. The walking distances will be determined by the distance between stations. The closer the stations are to one another the shorter the walking distances will be.

Refer to Chapter 2 regarding the first phase on the BRT / ITPN trunk routes. The CBD , Menlyn, Mamelodi via the Hatfield node will be the focus of residential densification within Region 6. Within Region 6, it is envisaged that the first phase of the BRT will link the CBD with Mamelodi in the east via the Hatfield Gautrain Station and the Menlyn Node.



The concentration zones and linear zones call for a drastic change in the built environment in terms of densities, typologies, built form and urban design, moving away from suburban typologies in these areas toward a more urban fabric.

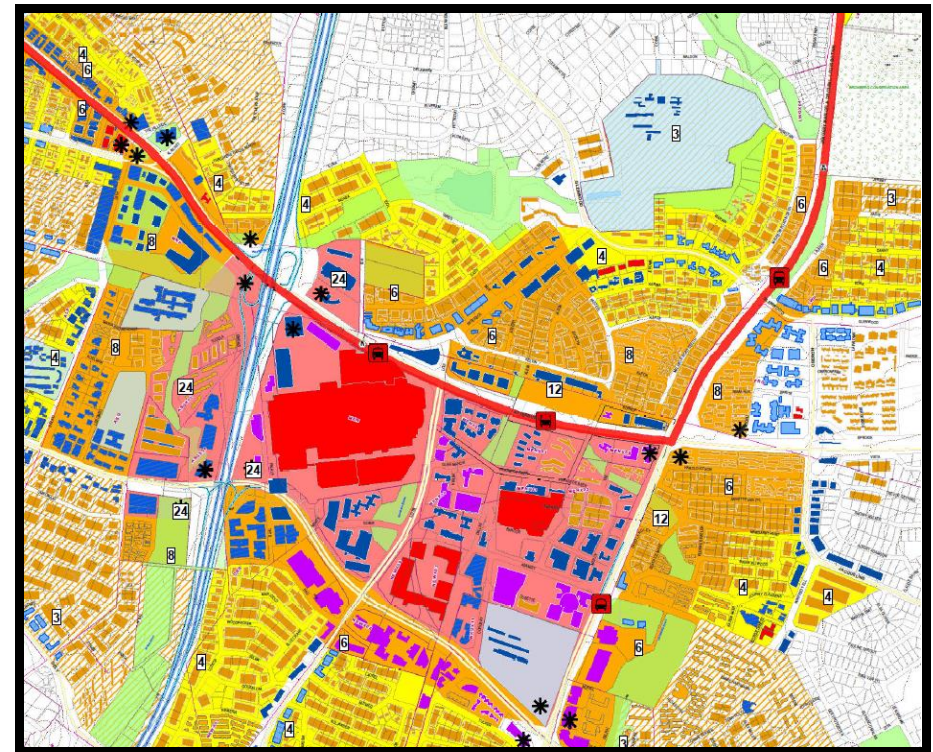




Typical BRT corridor Densification around Simon Vermooten BRT Trunk  
**High density Zones** in Region 6 are focussed on the Metropolitan Cores and Urban Cores. These are located at the Menlyn and Mamelodi Urban Cores.

Residential densification is proposed for the urban core areas surrounding the Metropolitan Core areas. The High Density Zones are identified as areas which should be developed as medium to high residential developments. It is envisaged that these nodes will develop a whole range of activities on an intense scale.

In terms of the Menlyn Metropolitan Core high density residential development in high rise apartment buildings are proposed surrounding the nodal area and proposed BRT lines. The detailed proposals should preferably include provision of hard open space and linkages to the existing open space hierarchy as illustrated on the development framework.







Proposed densification around the Menlyn Node.

The Eerste Fabrieke Urban Core is regarded as an emerging urban core and due to its distance from the Capital core or significant Specialised Activity Areas only two to three storey developments (walk-ups) are envisaged for this area. However, potential exist for higher rise development if part of a core development e.g. surrounding a station.

The Koedoespoort / Transnet land to the west of Silverton is another potential site for improved development. This site is very accessible via the N1, Stormvoël Drive and the railway line, with an existing station. The area should be redeveloped to provide for diverse residential typologies at various densities. A focused project could alleviate the housing shortage in the north eastern part of the region by broadening the housing spectrum in the region and allowing for increased residential opportunities. However, it must be noted that such development should include all supportive infrastructure e.g. community, social, educational, retail etc.

High density Zones in the west of the region is focussed on the Urban Cores where public transport infrastructure can be supported.

In Region 6 the area around the 7 existing stations and 2 planned stations has been identified as Transport Promotion Zones. Higher density developments should be developed within walking distance 900m around these nodes.

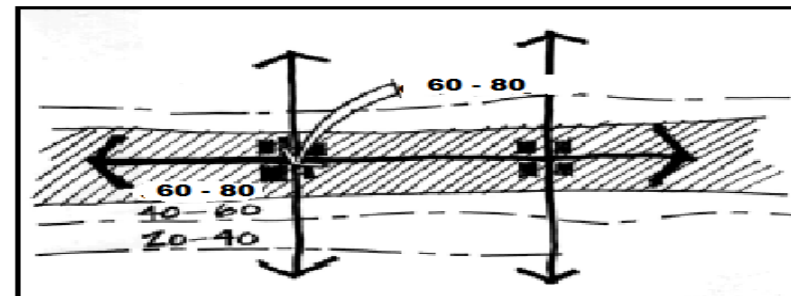
Densities within Concentration zones should not be developed at densities of below 80 units per hectare or less than 3 storeys.

#### 4.7.2 LINEAR ZONES (CORRIDORS AND SPINES)



( Up to more or less 200 m walking distance from public transport: density up to 80 units/ha)

For the purpose of densification, linear zones refer specifically to high intensity activity areas that are located along major routes. The routes usually carry high volumes of traffic to areas such as Zones of Concentration and Transit Promotion Zones and thus encourage the feasibility of public transport on strategic routes. The linear zones also connect the urban core areas with one another within the City.



The identification of these linear zones should follow a focussed, selective and phased approach, where only the most important routes are identified in the short term. This is necessary in order to achieve a high level of concentration along each of these routes rather than dispersing development along too many routes, and then the critical mass for public transport viability is never achieved. In terms of the densification strategy, linear zones refer specifically to high activity areas that are located along major routes. The main aim of the routes should be to encourage public transport.



In the region, it is identified to be applied to Atterbury Road, Lynnwood Road, Stormvoël Road, Tsamaya Road, K69 Solomon Mahlangu, Love Drive, Alwyn street, Nellmapius street, Bronkhorstpruit Road, Watermeyer Street, Simon Vermooten Road, Lynnwood Road, Proposed K54, Atterbury Road, Garstfontein Road and January Masilela Drive. See density map for detail regarding linear densification. Typically housing typologies that will be appropriate along these routes will be medium rise apartment buildings, walk-ups and duplex residential developments. Densification in accordance with the Compaction and Densification Strategy should be promoted along these routes, taking into account the existing urban fabric and local character of the area, design, unit sizes and erf sizes.

However, to promote public transport in the northern part of Region 6, the biggest impact could be achieved by concentrating development in Stormvoël / Tsamaya Roads between Denneboom Station and Eerstefabrieke Metropolitan Core and Waltloo Station- Phomolong and Greenview stations are completed. Mohwelere, Solomon Mahlangu Drive and Pretoria Street between Watermeyer and James Street. The area surrounding Pretoria Street in Silverton, between Watermeyer and James Street, can also be densified on the same principles.

#### 4.7.3 SUBURBAN DENSIFICATION ZONES



(density 25 units/ha)

Suburban Densification Zones are those existing suburban areas where there is potential for moderate densification because of the area's strategic location within the city (within a 25 km radius of the City). This zone makes for good application in areas that are close to places of employment, major retail centres and prominent transport routes, but where it is still desirable and warranted to maintain a suburban character. These areas are indicated in yellow on the Densification Map. The maximum density in these areas will be restricted to a maximum 25 dwelling units per hectare. The exceptions will be the nodal / core areas (as indicated on the densification map) within the suburban areas were densities of up to 200 units / dwelling-units per hectare can be supported depending on available public transport and social amenities. Activity streets in suburban areas as indicated in the RSDF also earmarked for densification up to 80/units per hectare.

Whereas the Concentration and Linear Zones proposes a particular urban environment, both the Suburban Densification Zone and the Low Density Zone are distinctly suburban zones.

Within Suburban Densification areas the core principles of densification are:

- Densification must contribute to the provision of lifestyle choices within the specific area. As an example provision must be made to sustain all the lifestyle phases from young working people and students, families with young children, and elderly people.
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.
- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment.
- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future. Pedestrianisation must be included into the densification process.
- Areas targeted for densification should be well served by social facilities such as education, place of public worship open space, recreation etc. or should have the potential to be well served by social facilities. Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase.
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Encourage community and stakeholder collaboration.
- Retain, enhance and encourage cultural assets

The various housing and densification typologies must be employed in a structured manner within this Zone, with cluster housing and apartments located adjacent to strategic points within the neighbourhood such as local nodes, public transport facilities on a major public transport route, education facilities and parks. These developments shall be subject to urban design principles and site development plans.

In essence, within this zone the urban form remains the same as it currently is, only with an increase in general density and a change in typology and density around strategic points within these areas.

Greenfields development (farm portions and small holdings) will be handled on merit and the general principles of density will apply.

#### 4.7.4 LOW-DENSITY ZONES



(up to 10 units/ha)

Low Density Zones are so called because those are the areas in the city where lower densities are actually more desirable, either because of location or *bona fide* special circumstances.

The majority of these zones are the peripheral areas that are removed from opportunities such as economic and employment nodes and mass transportation opportunities and is characterised by long travelling distances to areas of employment. In these areas, higher densities serve no purpose or could actually be detrimental to the functionality of the city, and it is preferable not to encourage population concentrations in these areas.

The Low Density Zone however also includes areas that are more centrally placed, but which have special characteristics that need to be preserved, and hence a low density is considered justifiable. These include areas along ridges, where lower densities are more conducive to a built form that is sensitive to the ridge quality from a visual point of view, including issues such as skyline, further spacing of buildings etc. These low density areas will also serve to provide visual relief in between adjoining higher density areas.

Ideally, a Low Density Zone's density should not exceed 10 dwelling units per hectare. Encouraging low densities in these areas are also important to ensure that the higher densities are directed and actually take place where they are desirable and required.

The following areas have been identified within Region 6 as Low Density Zones, even where a density of less than 10 units per hectare shall prevail. Erven directly adjacent to the Magaliesberg Natural Protected Area, one dwelling unit per 1000 m<sup>2</sup> and undeveloped suburban areas outside the 25 km radius of the CBD.

#### 4.7.5 RURAL DIVISIONS



Divisions of farm portions and agricultural holdings will be according to the densification map. The basic principle applicable will be that division of up to 1 ha or larger will allowed in areas with Council approved piped water. Divisions of 5000 m<sup>2</sup> will only be accommodated in certain areas as indicated on the map (Shere, Tweefontein , Along Boschkop Road and in Zwavelpoort and only with the consent of the Water and sanitation section.

Divisions of 5 ha and larger will be considered in areas without piped water except in cases of high agricultural potential and environmentally sensitive areas. Divisions must take flood lines and water courses into account when applied for.

Notation	Size	Services
	5000 m <sup>2</sup>	Piped water
	1 ha	Piped water
	2 ha	Piped water
	4ha – 5ha	Piped or Borehole Water
	8.5 ha	Piped or Borehole Water
	10 ha	Piped or Borehole Water
	+20 ha	Piped or Borehole Water

## 4.8 SUSTAINABLE HUMAN SETTLEMENTS

Sustainable Human Settlements should be provided in accordance with the guidelines as set out in the above Tshwane Compaction and Densification Strategy. Such settlements should be developed within concentration zones and along linier zones with the supporting densities as prescribed. Further human settlements should be provided in closes proximity of social amenities and public transport.

### 4.8.1 INFORMAL SETTLEMENT UPGRADES AND RELOCATION

In Region 6 about 40 000 informal units exist and need basis services.

- Existing informal settlements that fall outside of the urban edge should not be provided with in-situ upgrading. They should rather be relocated
- Informal settlements should only be relocated to areas that are geotechnically sound and do not fall within a flood line.
- Compaction, infill and densification should serve as key guiding principles for both in-situ upgrading and relocations.
- Informal settlement management plans should incorporate landscape planning

### 4.8.2 SOCIAL HOUSING



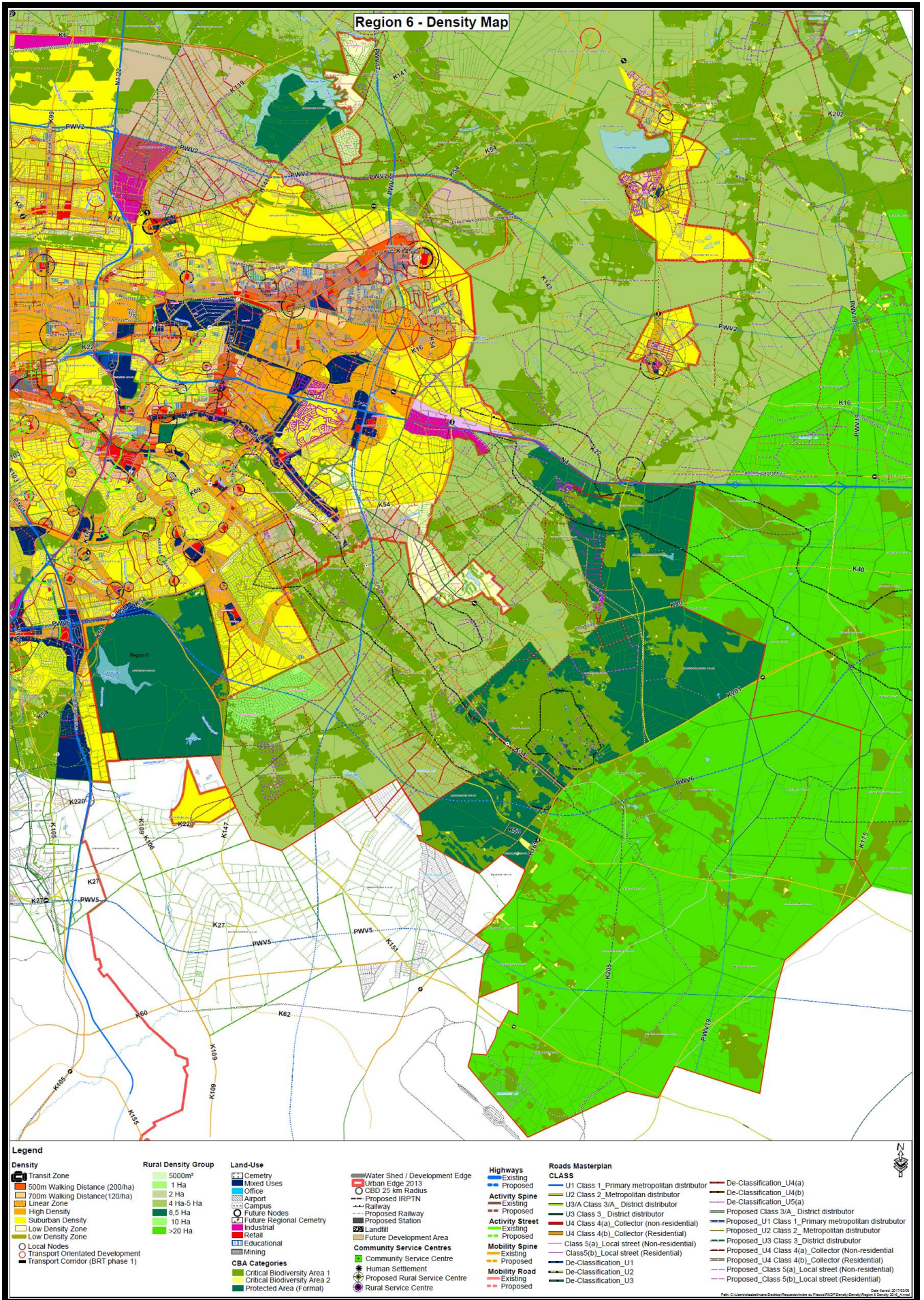
- Housing should provide a range of typologies within strategic nodes in order to address both social and economic restructuring
- Housing typologies should allow for diversity and significant densification in order to address the green economy of spatial planning

- Brownfield development is preferable to greenfield development in order to achieve infill development,
- compaction and rejuvenation of decaying areas (where applicable)
- Housing location should be targeted towards significant places of work opportunity, i.e. metropolitan nodes and primarily and urban cores
- Housing developments should include the provision of or be located next to safe and efficient linkages with space for pedestrians and cyclists.
- Housing location should be well planned to ensure connectivity via public transport to other places of significance in the metropolitan area
- Urban design, landscaping and streetscaping should be incorporated in housing schemes
- Social housing should be an effective component of sustainable human settlements i.e. providing or being located close to social amenities and facilities
- Mixed-use residential buildings should be implemented where possible, allowing for an optimal use of all available resources, supporting transit-oriented development and providing a sustainable living environment

Movement and Connectivity for more information on transit oriented development). Transit-oriented development supports the concept of the 20 Minute Neighbourhood. Social housing should be developed around Transport orientated Developments such as Eerste Fabrieke in Region 6.









## 4.7 MOVEMENT SYSTEM

During the development of the RSDF's the spatial location of proposed land uses is considered. It is essential that the transportation network and services can support the land use proposals. Therefore, a strategic assessment of the transportation needs was undertaken to identify possible transportation system interventions and refinements. The proposals are intended to serve as a point of departure for further more detailed feasibility studies.

There are currently several important strategic road links that are needed and justified. Some of these are planned to be implemented using public and private funding in partnerships. In the Eastern Region such a project has been identified for the Menlyn road network.

### 4.7.1 RSDF MOVEMENT SYSTEM PROPOSALS

Since the RSDF's are concerned primarily with the physical environment and aim to guide development, the transportation aspects in this section focus on physical infrastructure and not public transport services. Public transport servicing and scheduling should be guided by the spatial framework and development.

Furthermore, the proposals made are largely aligned with existing planning and aim to:

- Supplement existing transportation planning.
- Recommend large scale intervention.
- Scrutinise existing transportation planning (infrastructure).

All proposals made in this section are of a principle nature and require to be investigated in more detail to establish feasibility. Therefore the proposals are intended to inform the transportation planning process in an attempt to ensure integrated land use and transportation planning.

Some of the proposals are of a regional nature but they are dealt with per town planning region.

### 4.7.1.1 Rail

Gautrain serves Region 6 via the Grosvenor Street Station in Hatfield, which integrates with the existing Metro rail system. Metrorail serves the area well. The integration of these systems is important to ensure an integrated public transport system.

#### Gautrain

The re-evaluation and restructuring of the passenger rail system in Tshwane is a priority. This relates closely to the introduction of the Gautrain and the integration thereof within the CoT public transport network. The Gautrain has provincial significance and could specifically contribute Region 6's functionality if the line is extended to Menlyn. Further studies are needed in this regard.

#### Passenger Rail Agency of South Africa (PRASA) network planning proposals

PRASA priority corridor in the next 5 years in Gauteng is the Mabopane Johannesburg/Soweto line. The proposal includes upgrading of the capacity in terms of rolling stock and lines. New stations are also planned within this upgrading phase.

The focus of future residential development in this region is north of the railway line and N4, therefore the accessibility of the stations needs to be improved from the north.





#### 4.7.1.2 Road network

The Menlyn Node has experienced much growth in the recent years. This necessitated the improvement of the road system in order to improve the accessibility of the node. Most of the road upgrades in the Node have been completed as planned in the Menlyn Framework 2012.

##### Atterbury Road:

Upgrading within the existing road reserve to a dual carriageway consisting of four lanes in each direction between the N1 and January Masilela Drive, including the construction of a link between Dallas and Atterbury Road was started in 2016 and should be completed in 2017.

##### Garstfontein Road:

Upgrading within the existing road reserve to a dual carriageway consisting of three lanes in each direction.

##### January Masilela:

Upgrading within the existing road reserve to a dual carriageway consisting of two lanes in each direction between Atterbury Road and Aramist/Serene Street is ongoing.

A number of provincial road projects of a strategic nature are required in Region 6. The priority for implementation in this Region is the construction of the K54, east of the city. The implementation programme for this road is not clear. The K54 is expected to bring some relief to the congestion experienced in the east during peak hours. This road has been earmarked as one of the strategic public transport routes in the Integrated Transport Plan (ITP) by Tshwane and can possibly function as a new eastern bypass.

Current major projects include:

- Improving Solomon Mahlangu north of the N4.

- Upgrading of roads in the Menlyn Node area.
- Doubling of Lynnwood Road (Equestria Street to Solomon Mahlangu).
- Upgrade De Ville Bois Mareuil (Jaques to Delmas)
- Upgrade Garstfontein Road (Rubenstein to January Masilela Drive,)
- Upgrade Rietvlei Dam Road.
  - Extension of Derdepoort Avenue to link Stormvoël Road to Zambezi Drive.
  - Doubling of portion of Stormvoël Road (Hans Coverdale to Simon Vermooten Ext).
  - Doubling Pretoria Street east across railway line.
  - Building of the K-16 Road.
  - The extension of the K199 route.
  - Extension of Derdepoort Avenue (Tsamaya to Baviaanspoort)
  - Doubling of Stormvoel (Hans Coverdale to Waltloo)

The extension of the K16 to cross the railway line is supported. This will provide an additional link across the railway line and open up areas south of the railway line for development.

The upgrading of the Baviaanspoort Road could improve the service level of public transport entering the city from the north-east. This is supported provided the rationalisation of public transport on a regional level (Hammanskraal/Rayton options reported) is feasible.

An additional link from the planned future K16/Tsamaya Road intersection across the railway line passing to the east of SAMCOR and joining Simon Vermooten Road should be considered. Such a link could reduce the road traffic demand at Denneboom Station, where there is major pedestrian/vehicular conflict on the K16. It could further contribute to the alleviation of traffic congestion. North-south mobility is limited due to the Magaliesberg. An investigation into the provision of an additional link, which would alleviate pressure on Baviaanspoort Road, should be considered. This link could possibly cross the Magaliesberg at the Pienaars River, and link with Tsamaya Road and the K14.

In order to improve the accessibility of the eastern part of Mamelodi (Mahube Valley) from the primary network, the extension of the K54 from Mamelodi to the N4 should be prioritised. There is a need for an additional north-south mobility route in the east of Tshwane parallel to the N1. The K54 is a priority project that would satisfy that need although it is not clear when construction will take place. The principle of mobility in the east is supported.

East-west road capacity is limited and demand outstrips capacity during the peak hours. A large portion of this traffic has destinations south of Tshwane and an additional north south mobility route such as the K54 will alleviate the east west traffic load to an extent. Therefore, although there is an east-west capacity issue during peaks the need for east-west routes should be considered in conjunction with the impact that a north south route would have.

#### **4.7.1.3 Bus Rapid Transit (IRPTN System)**

The need for a high-quality, customer-orientated public transport (transit) system was identified that will deliver fast, comfortable and low-cost urban mobility within the City. The City's Integrated Transport Plan (ITP) and the Strategic Public Transport Network (SPTN) approved by Council in January 2007 clearly identified certain corridors that should be further investigated and implemented as mass rapid transport corridors.

##### **Vision and Objectives**

Tshwane's residents depend upon the efficient provision of public transport services to fulfill their daily mobility needs. The integration of the different rail, bus, minibus, and non-motorised transport options remains a major goal in delivering more convenient and cost-effective services. The proposed Implementation Plan seeks to articulate the vision and steps required to implement a public transport system that integrates all modes into a seamless and high-quality network.

The overall goal of this initiative is to improve the quality of life for the city's residents through the provision of an integrated public transport network that is rapid, safe and secure, convenient, clean, affordable, and socially equitable.



##### **Phased Implementation**

The development of the full integrated network will take place over a series of phases, in order to match the available resources for planning, financial, and construction. In addition to the full implementation of the Priority Rail Network, the following corridors are recommended for development of trunk and/or other road services in project Phase 1. See Details in Chapter 2.

##### **Phase 1 -**

Phase 1 basically consists of the corridor from Klipkruisfontein Node /Akasia Node to Pretoria CBD, with a further extension to Hatfield, Menlyn and Mamelodi, and will be made up as follows:

## 4.8 RURAL AREAS

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order i.e. to protect the Environmental sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land use development in the less sensitive areas. The Rural map at the end of this section will be applicable to the Rural areas of Region 6.

The Tshwane Rural Component will promote:

- An effective response to rural poverty
- Measures to ensure food security by maximizing the use and management of natural and other resources
- Promote the prevention of irreversible loss of productive agricultural land.
- Limit the fragmentation of productive agricultural land.
- Creation of vibrant, equitable and sustainable rural communities
- Contribution towards the redistribution and sustainable use of all potential agricultural land
- Creation of employment and business opportunities for the existing rural population
- Aims to prevent natural disasters like erosion and pollution and other detrimental effects on natural resources
- Formalization of residential settlements according to the agri village concept
  - Accessibility to community facilities, work opportunities and housing for all

- Maintenance of acceptable standard for roads and other modals
- The provision of Public transport as a service for the more densely rural areas.
- The Identification of multipurpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations.
- Provision of Adequate and respectable services to improve living conditions.

Attention to the matter of ownership and tenants' rights especially in areas where tribal land ownership exists.

### 4.8.1 Major Rural Roads

Each Region shows major roads and routes of Metropolitan context through the Region ensuring movement patterns and the continuation of roads and corridors for the greater Metropolitan area.

The following major roads serve the Rural Component of Region 6:

- N4 (existing)
- K54(proposed)
- R25 (existing)
- R50 Delmas Road)(existing)
- M 11 Atterbury extensions (proposed and under construction)
- K34

### 4.8.2 Urban Edge

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

As indicated in Part 2 “Metropolitan Context” of this document the Urban Edge cannot be seen as the only management tool to demarcate the Rural Component of Region 6.

#### 4.8.3 Development Edge



Compliments and corresponds mostly with the Provincial Urban Edge to indicate the extend of the Urban Fabric but deviates in some instances and only in some Regions from the Urban Edge where it follows the line indicating the non-availability of services infrastructure in the Region. The resulting area caused by the deviation between the edges can realistically not be developed in the near future and need to remain rural in character until such time that services can be provided.

#### 4.8.4 Future Urban Development Areas



These areas that results from the non- availability of services will form part of the Urban fabric in the future but needs to be planned for and preserved as Rural areas in a sensible way that will not constrict its incorporation when needed.

The rural-urban fringe located beyond most suburbs, where low-density suburban development meets rural and semi-rural areas. Often contains a mixture of land uses, including large-lot suburban residences, country estates, low-density commercial development, and the remaining agricultural and rural land uses. Specific concerns arise with such developments regarding the creation of “leap-frog” development that stimulates further sprawl of the urban area. By contrast, the small holding and agricultural potential of this zone can be planned to constitute an integral and dynamic part of the city economy (sometimes referred to the “urban breadbasket”). The

Future Development areas are identified for development in the near future.

Proposed Development Guidelines for development in these areas can be summarized as follows:

- The contribution of the proposed development towards the goals of the City strategy and Metropolitan Spatial Development Framework.
- The availability of bulk engineering services – especially water and sewerage
- The environmental sensitivity of the area – obvious considerations such as watercourses, ridges
- Proximity of site to public transportation routes/facilities such as stations
- Proximity to other supporting social facilities, economic opportunities, retail
- Physical features that may define the development – such as railway lines/watersheds/ provincial roads/environmental areas
- Liveable communities will have to be developed by means of social services such as schools, police stations and other amenities.
- Aesthetics and urban design guidelines will have to be provided with a diversity of housing typology which breaks from the tradition of monotonous housing schemes which have dominated the South African landscape for too long.
- The provisions of sustainable economic opportunities within these areas.

#### 4.8.5 Management Zones



The Management zones are areas not considered suitable for urban development as they are not well located in terms of the larger urban structure and areas of opportunity and/or are characterised by

environmental sensitivities as indicated by the C-Plan and Open Space Framework, which are important to protect from a metropolitan perspective. Rural development such as low density eco and equestrian estates will be supported depending on services that can be provided.

Within these Management Zones land uses and densities, which do not fit into the denser urban complex, should be permitted. Uses supported in the management zone would be, mini storage, children party venues. The availability of services and the ease of access to major roads will play an important role in the evaluation of non-residential uses as mentioned above. the easy of Non-residential uses serving the rural population and surrounding urban areas should be concentrated in Community Service Centres as indicated on Region 6 Rural Component Plan. Locations at the intersections of major Roads will be supported.

#### 4.8.6 Agricultural High Potential Areas



Where so indicated certain land in Tshwane Rural has unique agricultural potential in terms of its location, soil quality, being close to irrigation and other amenities or able to provide high yields and or produce with specific feeding qualities. These quality areas have importance on Regional, Metropolitan and even National level and should be preserved and used in terms of their uniqueness only. Food produce for the country as a whole should be maintained and improved for future generations.

Productive agricultural land will be protected as far as possible in terms of this framework. Fragmentation of agricultural high potential areas will be restricted to a minimum. Agri- industry will be supported in and in close proximity of agricultural high potential areas.

#### 4.8.7 Sensitive Protected Areas /Biodiversity Zone



Throughout Tshwane there remain farm portions outside of the Urban Edge that will continue to be used for agricultural purposes. These areas are sometimes already enclosed by other land uses but are not earmarked for change yet. It is necessary to preserve the agricultural and rural character and these areas need to be protected from other uses

Sensitive protected areas. (Combination of C-Plan protected areas), including (Ridges and Streams, Natural resources, Fauna and Flora protected places / areas). These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Protected Area of Region 6 is located mainly along the Magaliesberg Protected Nature Area along the northern boundary of the Region. This area should be managed through environmental codes, to protect the basic resources. The Sensitive Protected Area include important areas, irreplaceable areas, protected areas, ridges and blue ways in line with the C-Plan

Within these Management Zones land uses and densities, which do not fit into the denser urban complex, should be permitted as indicated on the density map. Non-residential uses serving the rural population should be concentrated in Community Service Centres as indicated on Region 6's Rural Component Plan and along certain major road networks in the region. Non- agricultural uses will only be promoted if the amenity of the rural area remains intact and the impacts of the development on neighbouring properties are minimal.



#### 4.8.8 Sensitive Ridge Areas



Sensitive Ridge area as indicated on the C Plan should be protected as far as possible in terms of development. Bronberg and the Magaliesberg Protected Nature Area are also regarded as sensitive. All development will be restricted in terms of environmental considerations. These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Ridges of Region 6 is located mainly along the Magaliesberg Protected Nature Area and the Bronberg range. This area should be managed through environmental codes, to protect the basic resources. These areas should be managed through environmental codes, to protect the basic resources.

#### 4.8.9 Heritage and Cultural protected Areas

Heritage and

Similar to protection of monumental structures, places and land within the urban context there are equally important structures places and land found in Tshwane's Rural areas that need protection. In most cases the best protection can be provided when it is also developed and operated as Tourism attractions.

#### 4.8.10 Tourism Potential Places/Areas

Tourism

Of natural and economic importance for Tshwane is the accrue ment and expansion of the already known places of tourism, tourism attractions and

tourism activities. Places with tourism potential occur throughout Tshwane's rural areas. Conservation and preservation needs to be maintained and tourism potential exploited without damaging overall natural and rural character. Different tourism related uses such as picnic areas, lodges, wedding venues and arts and craft related uses including places of refreshment will be supported in these areas. Commercial uses and uses such as storage and light industrial uses should not be supported in these areas.

#### 4.8.11 Conservancies

Conservanci

Proclaimed conservancies have legal standing and management prescriptions. Conservancies strive towards preservation and the protection of their present state and the notion should be honoured in the Rural context and the evaluation of development proposals.

The following conservancies' potential can be found in Region 6:

- Bronberg Conservation area
- Klipkop Conservation Area

#### 4.8.12 Game and Nature Reserves

Game and Nature

The following places with tourist potential can be found in Region 6:

- Rietvlei Nature Reserve
- Faerie Glen Nature Area
- Moreleta Kloof Nature Reserve

#### 4.8.13 Mines and Places of Manufacturing

Mines/  
Places of

There are few and dispersed mines and or places of manufacturing in Region 6. All of them need to be managed for their time of existence and specific rehabilitation programs should be investigated and installed. Protection measures should be implemented for adjacent land and sensitive environments.

#### 4.8.14 Human Settlements



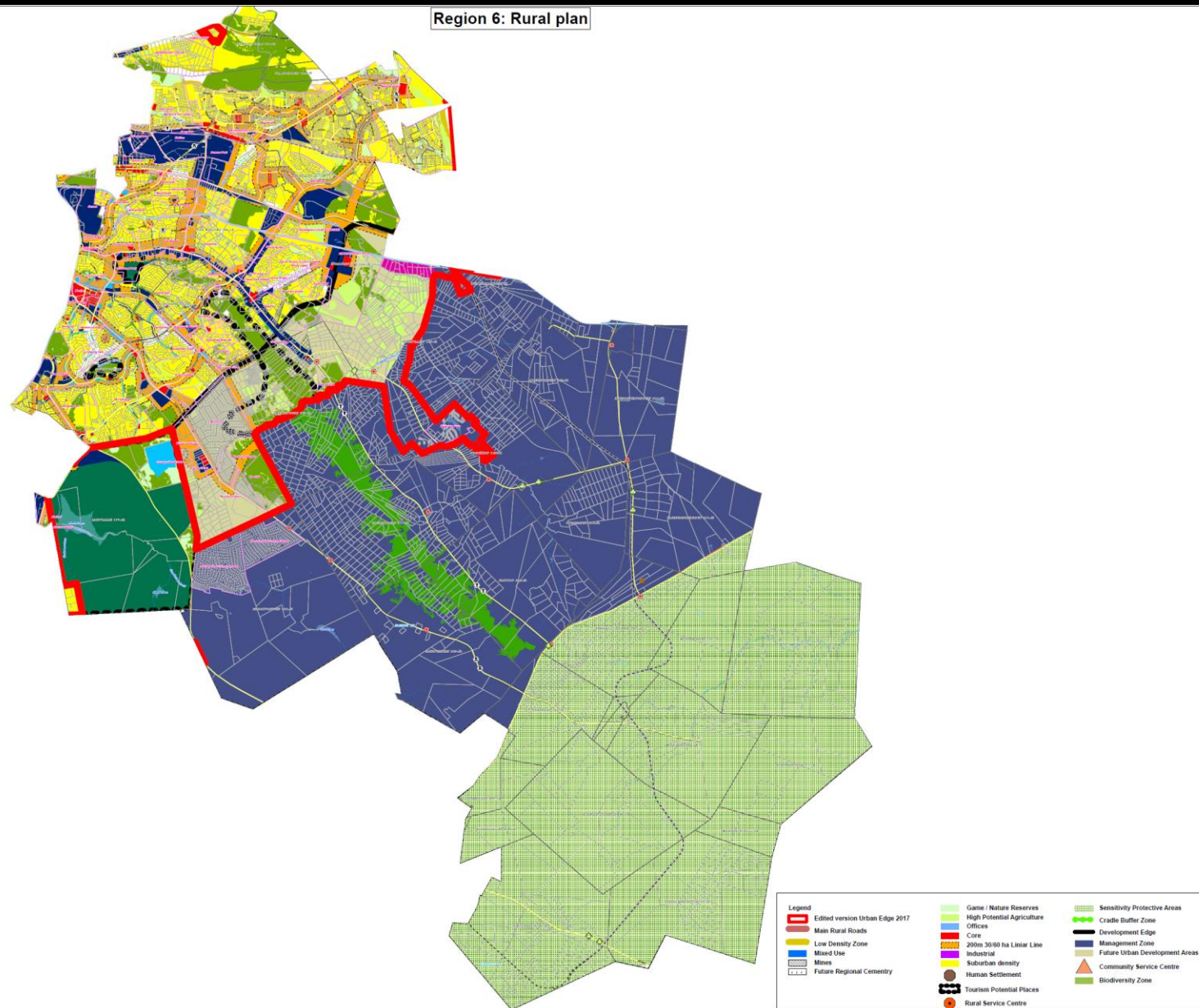
There are a number of places in the Rural Component of Tshwane where villages and other forms of human settlements occur. Some are tribal in nature with official captaincy while others are just a habitual conference of people living together. Some have legal support while others are just illegal squatters. It remains a sensitive issue how to deal with settlements and in each specific case measurements should apply how to best resolve settlement issues. Settlements to remain should be formalized and provided for in terms of human needs and basic services. A settlement that must move needs planning according to an approved program. Specific measures must be taken to manage adjacent land.

#### 4.8.15 Community Service Centres



Remote rural areas most of the time do not have the convenience of facilities and amenities within easy reach and sometimes have to rely on the closest urbanized area to fulfil

certain basic needs. Because of the extensiveness of most Rural areas it is therefore most logical to concentrate whatever facilities, services and amenities that can and should be provided together close to the bulk of the population at a location that is the most accessible to all. As transport provides accessibility, road junctions or cross roads tend to provide most accessible locations for surrounding populations in vast rural areas. It is the challenge of each region to identify such suitable and accessible location/s to establish Community Service Centre/s for its rural component.



#### 4.9 OPEN SPACE AND ENVIRONMENTAL AREAS

The RSDF plan does not indicate the whole Metropolitan open space network, because of its concern with open spaces on a regional scale only. The plan shows as 'Open Space' all rivers and water courses, all mountain ranges and ridges as indicated in the TOSF, all nature areas and conservation areas, as well as the major brown nodes. The plan also shows as 'Environmental Areas' all irreplaceable and important sites, as identified and defined by GDARD, as well as all conservancies. Brown, grey and red nodes and ways are not shown. For complete and detailed information regarding the Metropolitan open space network, it is essential that the TOSF is always consulted together with the RSDF plan.

The major open space network form giving elements have been indicated on the Regional Spatial Development Framework. Potential Placemaking opportunities exist around the N1, N4, R21 provincial routes, Menlyn Metropolitan Core along Tsamaya Road and Eerste Fabrieke Urban Core.

It is important to note the future place making opportunities for the areas surrounding the station precincts of the Ring Rail Stations. Discussions with GDARD and the Municipality's Environmental Planning Section must be held before any development or change of land-use application can be submitted, to determine whether the important sites, irreplaceable sites and high ecological sensitivity sites are subject to a possible E.I.A. survey.

The Erasmuskloof Strategic Environmental Assessment, completed in 2005 and the Faerie Glen Strategic Environmental Assessment (SEA), completed in 2004, create the opportunity for the public sector to indirectly get involved in the development of the region's conservation areas and open space systems in order to ensure the upkeep and preservation of these important natural assets. This could become a profitable income generating source for the city with many spin-off possibilities.

The maintenance of council owned land and other open space areas is of great concern and issues such as illegal dumping, destruction of natural areas and illegal residential occupation of open areas should urgently be addressed.

The existing open space areas such as the Rietvlei dam with its active boat club and recreational facilities should be unlocked to display its true potential of becoming a regional recreational open space facility.

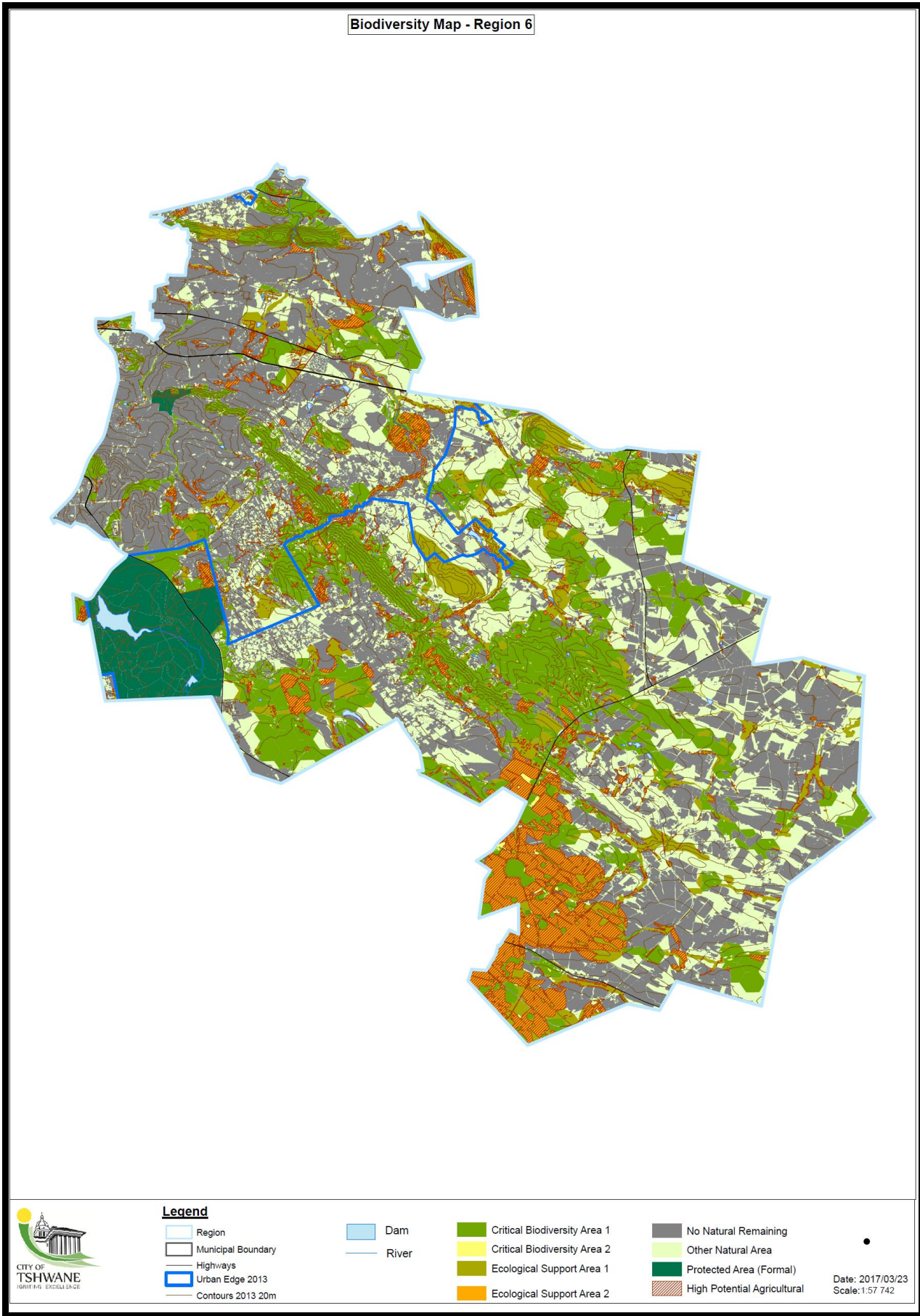
The Biodiversity map and tables must be used as a guideline for land uses management in these areas.

## LAND USE PLANNING GUIDELINES -

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Protected Areas</b>	Formal Protected Areas and Protected Areas pending declaration under NEMPA.	Maintain natural land. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Maintain or obtain formal conservation protection.	Conservation and associated activities.	All other land-uses.
<b>Critical Biodiversity Areas (1)</b>	Areas required to be maintained in a natural or near natural state to meet targets for biodiversity pattern (features) or ecological processes.	Maintain natural land and ecological processes. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Obtain formal conservation protection where possible. Implement appropriate zoning to avoid net loss of intact habitat or intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations with strict control on environmental impacts and carrying capacities, where the overall there is a net biodiversity gain. Extensive Livestock Production with strict control on environmental impacts and carrying capacities. Urban Open Space Systems	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production ( all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures). Arable Agriculture (forestry, dry land & irrigated cropping). Small holdings
<b>Critical Biodiversity Area (2)</b>	Cultivated landscapes which retain importance for supporting threatened species	Maintain current agricultural activities. Ensure that land use is not intensified and that activities are managed to minimize impact on threatened species.	Avoid conversion of agricultural land to more intensive land uses which may have a negative impact on threatened species or ecological processes.	Current agricultural practices including arable agriculture, intensive and extensive animal production, as well as game and ecotourism operations, so long as these are managed in a way to ensure populations of threatened species are maintained and the ecological processes which support them are not impacted.	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). More intensive agricultural processes than currently undertaken on site.



Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Ecological Support Areas (1)</b>	Natural, near natural and degraded areas required to be maintained in a ecologically functional state to support Critical Biodiversity Areas.	Maintain ecological processes.	Implement appropriate zoning and land management guidelines to avoid impacting ecological processes. Avoid intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations. Extensive Livestock Production. Urban Open Space Systems. Low density rural residential, smallholdings or resorts where development design and overall development densities allow maintenance of ecological functioning.	Urban land-uses including Residential (including golf estates), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production ( all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures) Arable Agriculture (forestry, dry land & irrigated cropping). Note: Certain elements of these activities could be allowed subject to detailed impact assessment to ensure that developments were designed to maintain overall ecological functioning of ESAs.
<b>Ecological Support Areas (2)</b>	Areas with no natural habitat which retain potential importance for supporting ecological processes.	Avoid additional impacts on ecological processes.	Avoid intensification of land use, which may result in additional impact on ecological processes.	Existing activities ( e.g. arable agriculture) should be maintained, but where possible a transition to less intensive land uses should be favoured.	Any land use or activity which results in additional impacts on ecological functioning, mostly associated with the intensification of land use in these areas (e.g. Change of floodplain from arable agriculture to an urban land use or from recreational fields and parks to urban).
<b>Other Natural Areas</b>	Natural and intact but not required to meet targets, or identified as Critical Biodiversity Areas or Ecological Support Areas.	No management objectives, land management recommendations or land-use guidelines are provided as these areas are outside the ambit of the Bioregional Plan. These areas are nevertheless subject to all applicable town and regional planning guidelines and policy. Where possible existing transformed areas should be favoured for development before "Other natural areas" as before "Other natural areas" may later be required either due to the identification of previously unknown important biodiversity features on these sites, or alternatively where the loss of "Critical Biodiversity Areas" has resulted in the need to identify alternative sites.			
<b>No natural habitat remaining</b>	Transformed or degraded areas which are not required as Ecological Support Areas, including intensive agriculture, urban development, industry; and infrastructure.				



#### 4.10 WETLAND MANAGEMENT PLAN FOR TSHWANE

This plan has been developed to improve wetland management in the City of Tshwane. Wetlands are critical to the wellbeing of the local economy, communities and individual people and provide a range of services for the City of Tshwane.

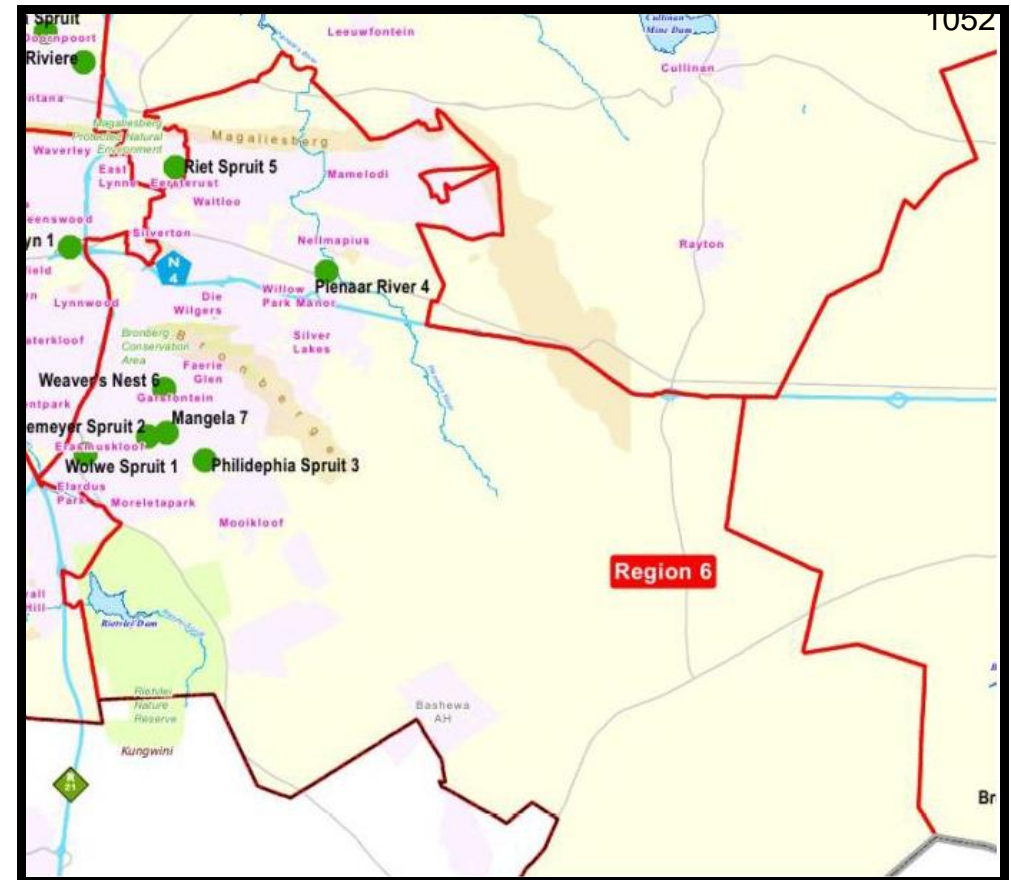
Wetlands can be regarded as „ecological infrastructure“. They are as important as other types of infrastructure for providing a range of services for residence. As with other forms of infrastructure such as roads, wetlands also require management and maintenance in order to keep them in good condition and functioning well.

Ecosystem services provided by wetlands include: water storage, flood protection, water purification, food, materials, habitat for species, carbon storage, local climate and air quality regulation.

It is important to take note that wetlands benefits all the residence of the City of Tshwane. Although the Municipality is the custodian of wetlands only on municipal properties, all the wetlands supply ecosystem services to all residents.

The goals of the plan are as follows in Region 6.

1. Wetlands are conserved and protected.
2. In areas where the continuing loss or degradation of wetlands, or their functions, have occurred and/or reached critical levels, wetlands are rehabilitated or enhanced.
3. All departments are aware of the importance of wetlands and wetland functions are recognised in resource planning, management and economic decision-making with regard to all programmes, policies and activities within the City of Tshwane.
4. Local communities collaborate in wetland management.



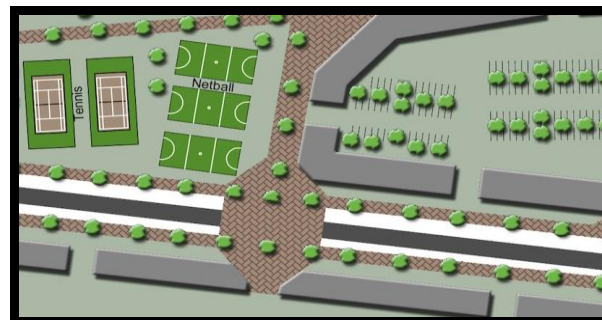
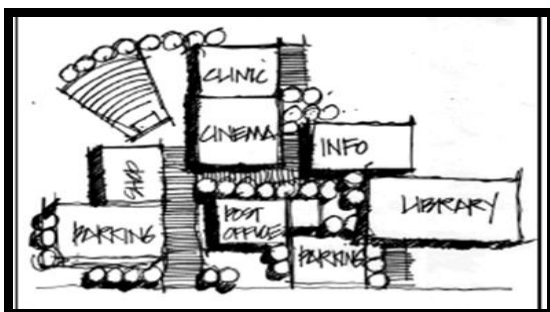


From a spatial or location perspective, the clustering of parks and social facilities in and around corridors and other points of highest accessibility (such as major transport facilities) is of vital importance.

Different social facilities such as schools, clinics, pay points, library's, active open space and other should be clustered at one central point in the residential neighbourhood and should be accessible in terms of public transport.

Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase. Open green space should not be privatised. Existing open spaces and parks must be protected and not used for development purposes

Encourage community and stakeholder collaboration; and retain, enhance and encourage cultural assets. Neighbourhood amenities must be provided as densification takes place. Where neighbourhoods lack sufficient open space, new parks and recreation areas must be introduced, especially in areas earmarked for higher density development. Activity Support is the presence of activity planned for the space. Development designs should locate plazas, for example, in places where they are most likely to be used for gatherings (both organized events and informal meetings).



**Primary school Needed in Region 6**

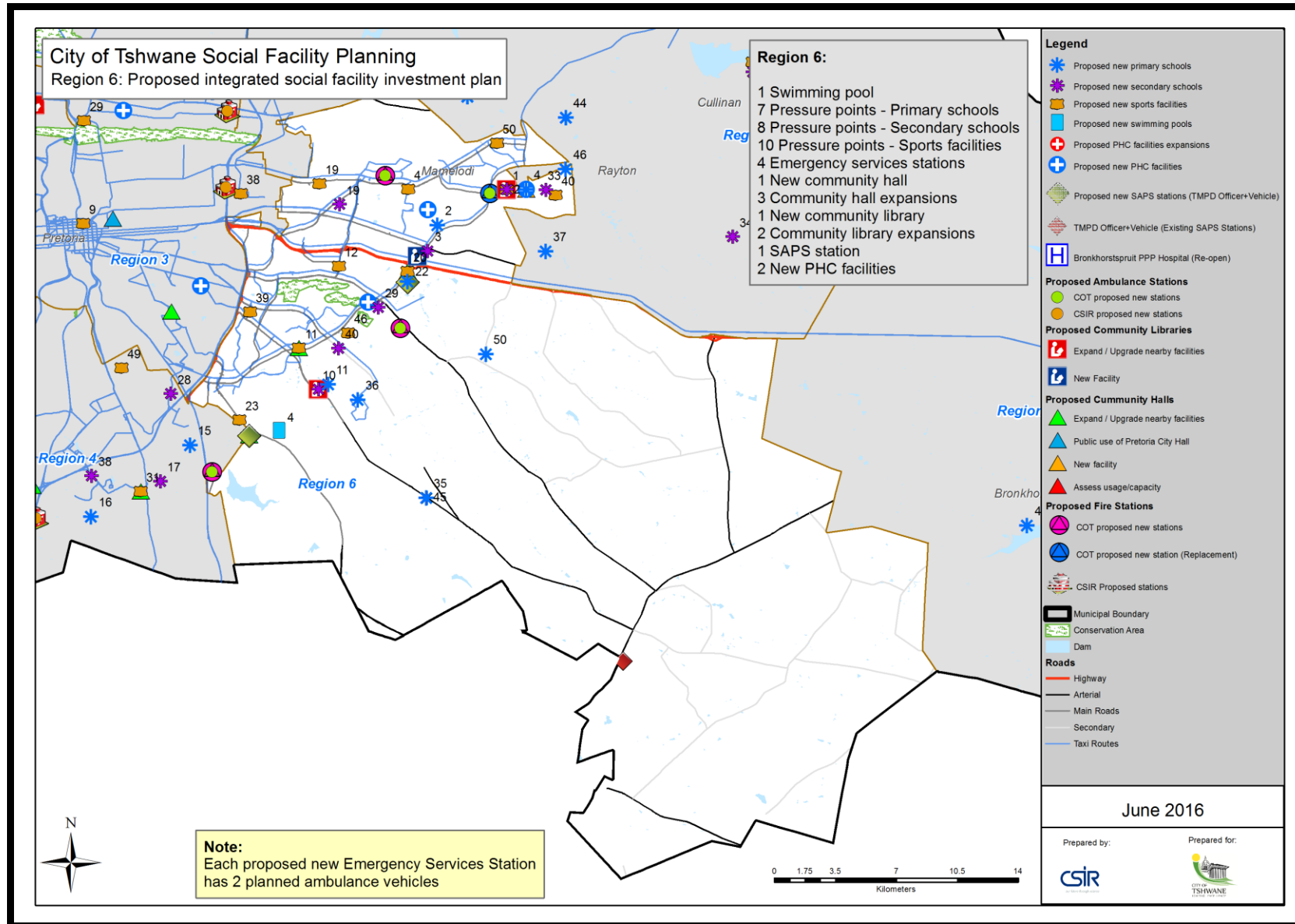
**Primary schools identified pressure points and their attracted population / demand – Region 6**

Attracted population	Facility equivalent	Suburb / Sub-place
12 905	An equivalent to 12 schools of 1000 pupils	Mamelodi - Nellmapius
2 953	An equivalent to 3 schools of 1000 pupils	Pretoriuspark informal settlement
1 447	An equivalent to 1 school of 1000 pupils	Willow Acres Estate

**Secondary School Needed in Region 6**

**Primary schools identified pressure points and their attracted population / demand – Region 6**

Attracted population	Facility equivalent	Suburb / Sub-place
9 131	Equivalent of 9 secondary schools of 1000 pupils	Mamelodi - Leeufontein
5 748	Equivalent of 6 secondary schools of 1000 pupils	Nellmapius
2 492	Equivalent of 2 secondary schools of 1000 pupils	Pretoriuspark
1 116	Equivalent of 1 secondary schools of 1000 pupils	La Concorde





## PART FIVE: DETAIL PRECINCT PLANS

### 5.1 EXISTING PRECINCT PLANS

Previously a number of precinct plans and policies have been developed for areas within the region which are in line with the CDS and MSDF. The following list of policies and plans with their main proposals are included as part of this framework.

#### 5.1.1 MENLYN NODE PLAN

Essentially, the node plan supports the goals and objectives of the Regional Spatial Development Framework. The plan makes provision for high density residential and mix use development on the western side of the N1.

The Spatial Development Framework for the study area is based on a range of development objectives/principles that need to be achieved as part of the development of the study area in future.



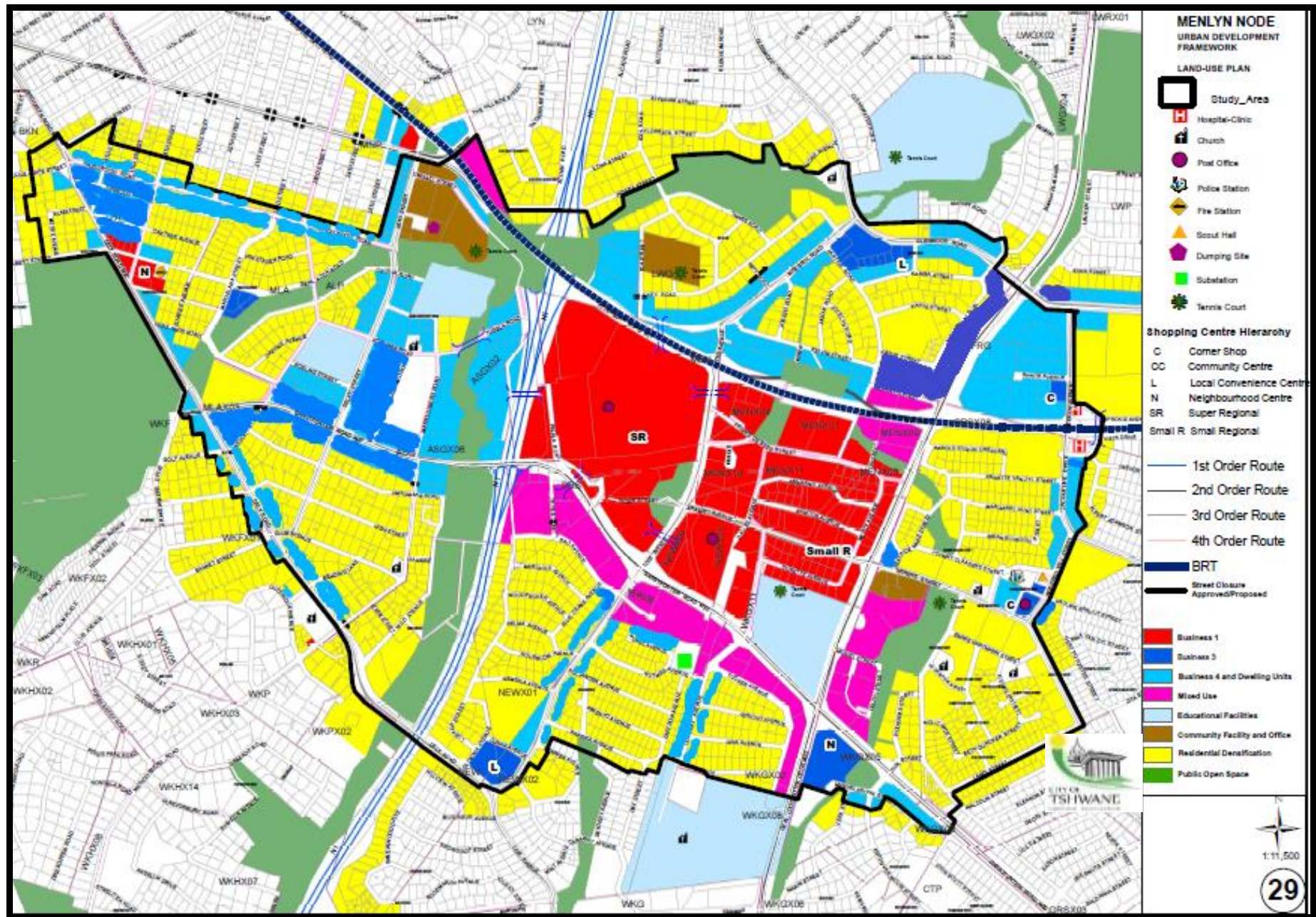
The framework serves to guide the development process in the study area in a logical, cost effective and sustainable manner – both in its local and in its regional context in order that the area develops in a sustainable manner. It is in this regard that the Menlyn Node and Surrounding Areas: Spatial Development Framework (MNSUDF) has as its function to:

- Allow for the expansion and intensification of economic, social and residential activities in the Menlyn Node in order for the node to develop into a fully-fledged Metropolitan Activity Node and Transport Orientated Development Node (See Chapter 4)
- To protect, enhance, and improve the functionality of the entire regional open space system in the area.
- To protect and expand the existing community facilities in the Menlyn Node and surrounds in order to serve the social needs of the current and future population residing in the area.
- To upgrade and maintain the movement network in the study area not only to facilitate the efficient movement of various public and private modes of transport within the node, but also between the Menlyn Node and other activity nodes in the City of Tshwane and Gauteng Province.
- To enhance public transport facilities and services (bus, taxi, BRT and Gautrain feeder system) in and around the Menlyn Node, and provide for easy and safe pedestrian movement and access to these facilities.
- To alleviate the pressure for horizontal expansion of economic activities into surrounding residential areas by focusing on optimally utilising the vertical space available in the Menlyn Node.
- To promote residential redevelopment and densification around the Menlyn create a natural buffer of high value (financial and social) residential development around the Menlyn Node in order to prevent the horizontal expansion of business activities, and to rather promote the vertical expansion of the node.
- To facilitate the sustainable development of the Menlyn Node by way of ensuring the incremental expansion and continuous maintenance of engineering services in the node and surrounding areas.

Densities in the Menlyn Node will be guided by the density as contained in chapter 4 of this document and as indicated on the density maps of Region 3 and 6. Height controls will be used as a principle and a guideline only. Additional activity streets have been included in the node namely: Louis, Laurel, and Corobay in the node as indicated in Chapter 4 and as indicated on the Nodal and Corridor Map of Region 6. Laurel Street North will only be considered if access is obtained from the North. Mixed uses will also be supported on Line 2 C trunk route along January Masilela section of the trunk route.









### 5.1.2 RUBENSTEIN DRIVE DEVELOPMENT FRAMEWORK

A local Spatial Development Framework for Rubenstein Drive was prepared in 2004. During the preparation, an extensive public participation program was followed and the proposals were accepted by the majority of the affected parties.

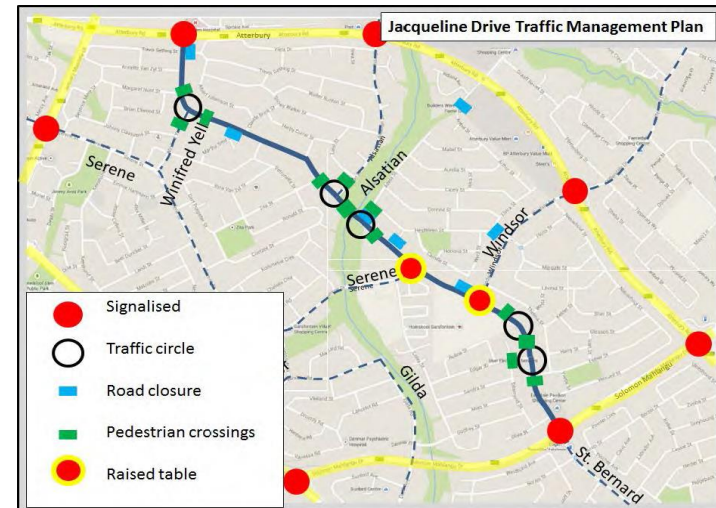
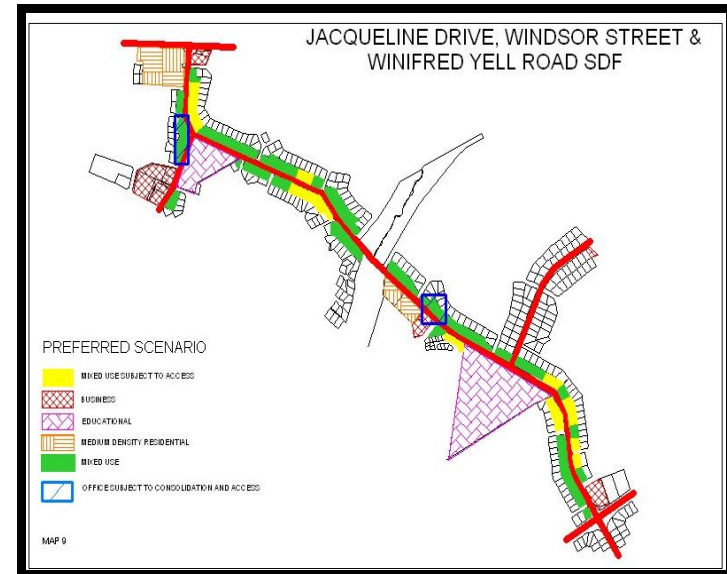
The proposals contained in the local framework support the broad goals and objectives of the Regional Spatial Development Framework and should be used as a guideline in considering land use applications in the area.

### 5.1.3 JACQUELINE DRIVE SPATIAL DEVELOPMENT FRAMEWORK

A local Spatial Development Framework for Jacqueline Drive was prepared in 2004. During the preparation, an extensive public participation program was followed and the proposals were accepted by the majority of the affected parties.

The proposals contained in the local framework support the broad goals and objectives of the Regional Spatial Development Framework and should be used as a guideline in considering land use applications in the area.

A traffic management plan was also completed in 2015 which gives guidens in terms of future development along this activity street.







### 5.1.7 SPATIAL DEVELOPMENT FRAMEWORK FOR HAZELDEAN NODE

The Hazeldean Node is an area of mixed uses and medium and high density residential development. It consists out of a basket of rights, spread over several townships.

Existing rights include residential, retail, offices, medical, dental and health centres, social services, gymnasiums, places of refreshment and amusement, an exhibition centre, education, public and private open space and agricultural uses.

The FSR varies but does not exceed 0.6 and the height varies from 1 to 3 stories in specific locations. Residential densities vary from 40 to 80 dwelling units per hectare, including a retirement village.

A landmark development at the core of the node is envisaged with a possible height restriction of 6 storeys, to be constructed as a place making element and used for purposes of a hotel. It is important to note that the total development is subject to an urban design framework.

The framework, in its design parameters, takes heed amongst others of private open space, public open space, environmental sensitive areas, agricultural and commercial farming operations, spatial flow and a sense of place as important elements in the total construction of the development.



### 5.1.8 SPATIAL DEVELOPMENT FRAMEWORK FOR MOOIKLOOF NODE

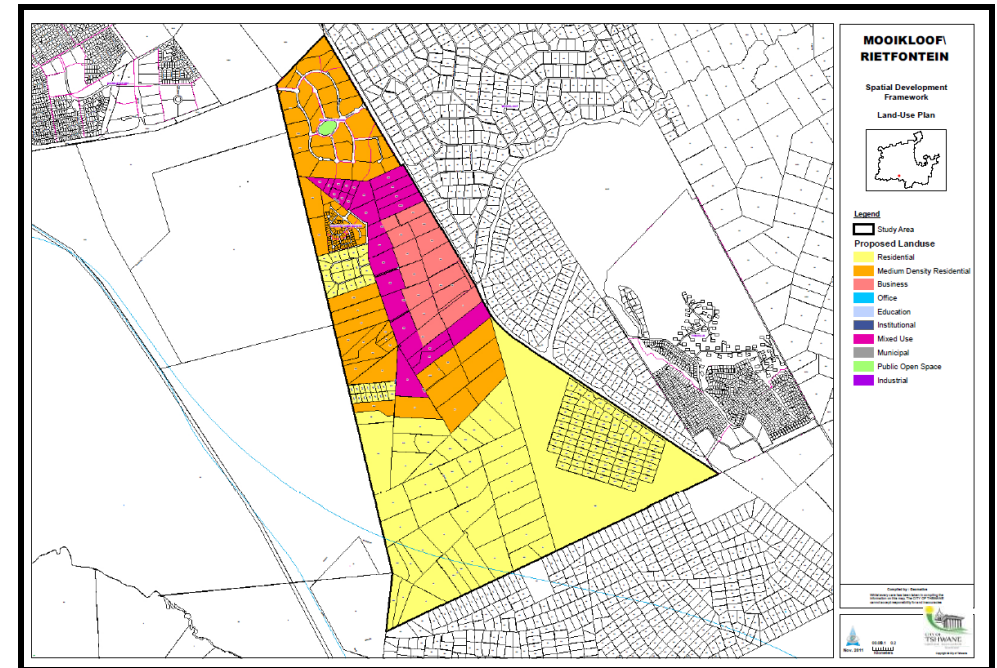
The Mooikloof Node is an area of mixed uses and medium and high density residential development. It consists out of a basket of rights, spread over several townships.

Existing rights include residential, retail, offices, medical, dental and health centres, social services, gymnasiums, places of refreshment and amusement, an exhibition centre, education, public and private open space and agricultural uses.

The FSR varies but does not exceed 0.6 and the height varies from 1 to 3 stories in specific locations. Residential densities vary from 40 to 80 dwelling units per hectare, including a retirement village.

A landmark development at the core of the node is envisaged with a possible height restriction of 6 storeys, to be constructed as a place making element and used for purposes of a hotel. It is important to note that the total development is subject to an urban design framework.

This node is in the future development and will only be able to be developed once services become available.





### 5.1.9 MAMELODI URBAN CORE

The MSDF indicates an urban core in Mamelodi which include Denneboom, T section and Eerste Fabrieke. This framework supports the principle. The focus of this node is however on the provision of social facilities, and higher density residential although any private investment related to the development of commercial or residential activity should be encouraged.

- MAX City must be included as future urban core, it consist of various stores clothing, furnisher, food and restaurant etc. The proposed BRT corridor starts at the corner of Tsamaya and Hans Strydom Drive (Solomon Mahlangu) next to the Max City retail complex.
- Future proposed high density residential areas around 1 to 2 km radius of the Max city. Fourteen or more extension at "Gem Valley", "Glen way" "Ramokgopha" development. Mixed typology and mixed land use around Max city. Bonded houses to be developed. (Former Nokeng tsa Taemane).
- Large influx of informal settlements and new townships approved and received in Mahube valley area. The number of residential dwelling will increase. Social amenities must be encouraged in Mahube Valley area.
- This high density already has negative impact on the existing roads namely Hans Strydom Drive (Solomon Mahlangu) towards Cullinan, Tsamaya and Zambezi Road (Sefako Makgatho).
- School sites in the nodal area are very scarce, school sites must be encouraged around these nodal points. Considering easy access and closer transportation facilities. However, elsewhere school sites are over provided and will not be built.
- K54 proposed route will add as advantage for encouraging higher density along the route.



## 5.2 PLANNING POLICY RATIONALISATION

Spatial Policy	Status	Approval Date	Purpose	Changes in Planning Context	Proposed Future of Plan
WATERKLOOF AGRICULTURAL HOLDINGS SPATIAL DEVELOPMENT FRAMEWORK	Approved	10 October 2008	Densification	Densification and compaction Strategy to replace policy	Withdrawn and replaced by RSDF 2013: See 4.6
DRAFT SPATIAL DEVELOPMENT FRAMEWORK FOR WILLOW PARK AND WILLOW BRAE	Approved	7 July 2006	Densification & mixed use	Densification and compaction Strategy to replace policy	Withdrawn and replaced by RSDF 2013: See 4.6
MAXIMUM RESIDENTIAL DENSIFICATION FOR WATERKLOOF RIDGE AND WATERKLOOF HEIGHTS EXTENSION 3 (Schedule XII to the Pretoria Town-planning Scheme, 1974)	Approved		Non Densification –	Densification and compaction Strategy to replace policy	Withdrawn and replaced by RSDF 2013: See 4.6
MAXIMUM RESIDENTIAL DENSIFICATION FOR ERVEN IN LYNNWOOD GLEN, LYNNWOOD MANOR, LYNNWOOD PARK AND LYNNWOOD RIDGE (Schedule XIV to the Pretoria Town-planning Scheme, 1974)	Approved		Non Densification –	Densification and compaction Strategy to replace policy	Withdrawn and replaced by RSDF 2013: See 4.6
INTEGRATED DEVELOPMENT FRAMEWORK FOR DUNCAN STREET, LYNNWOOD ROAD, CHARLES STREET, ATTERBURY ROAD, GARSFONTEIN ROAD AND DUXBURY/ BROOKLYN/ DELY ROAD	Approved		Densification & mixed use	Densification and Compaction Strategy to replace policy	Withdrawn and replaced by RSDF 2013: See 4.5 and 4.6

WILLOW GLEN/ EQUESTRIA LOCAL SPATIAL DEVELOPMENT FRAMEWORK	Approved		Densification & mixed use	Densification and compaction Strategy to replace policy	Withdrawn and replaced by RSDF 2012: See 4.6
MENLYN NODE PLAN 2012	Approved		Mixed use and intensification	Approval of BRT and IRPTN and construction of Garsfontein interchange on N1	To be retained as guideline
DENNEBOOM URBAN DESIGN FRAMEWORK	Approved		Mixed use and intensification	Status quo remains	To be retained
RUBENSTEIN DRIVE DEVELOPMENT FRAMEWORK	Approved	2008 as part of RSDF	Mixed use and intensification	Status quo remains	To be retained as guideline
JACQUELINE DRIVE SPATIAL DEVELOPMENT FRAMEWORK	Approved	2008 as part of RSDF	Mixed use and intensification	Status quo remains	To be retained as guideline

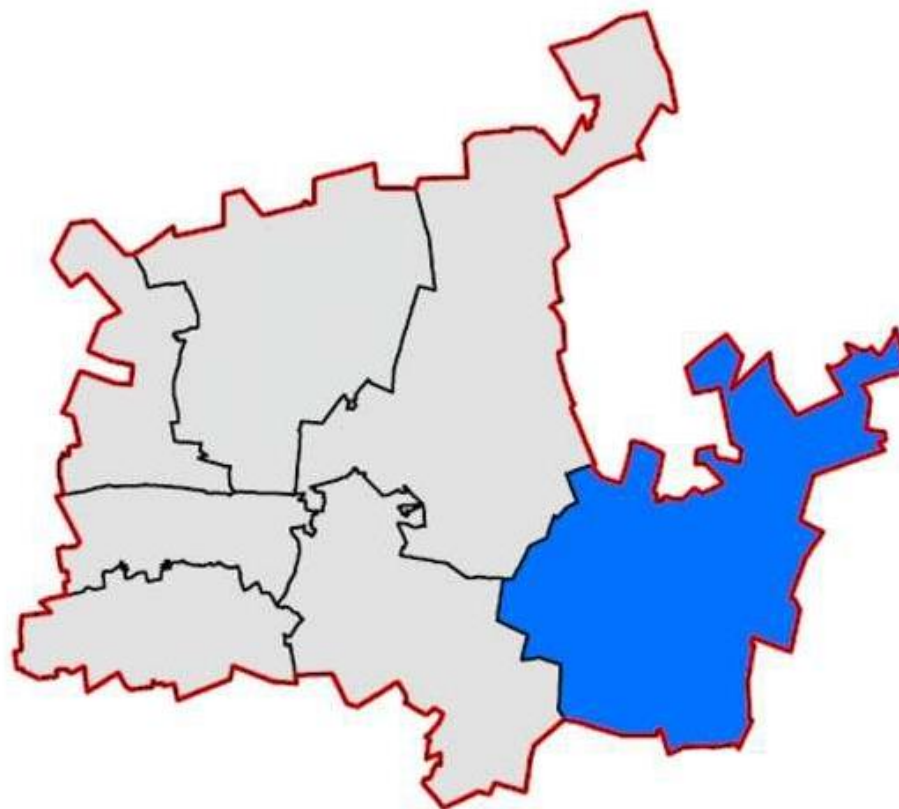




## 6. REFERENCES

- Cities Network, **Developing a Collective approach to Mixed- Use Development in Transit – Oriented Development Precincts**, June 2016.
- City of Johannesburg, **Complete Streets**, April 2013.
- City of Johannesburg, **Density Guidelines**, June 2013.
- City of Tshwane, **Comprehensive Integrated Transport Plan 2015 - 2020**, June 2016.
- City of Tshwane, **Integrated Rapid Public Transport Strategy of the City of Tshwane**, November 2012.
- City of Tshwane, **Rapid Transit (TRT): Spatial Development Policy: Densification and Intensification Guidelines**, March 2014.
- City of Tshwane, **Streetscape Design Guidelines**, August 2007.
- City of Tshwane, **Draft Streetscape Design Guidelines**, August 2013.
- City of Tshwane, **Tshwane MSDF 2012**, June 2012.
- City of Tshwane, **Tshwane RSDF 2013**, March 2014.
- City of Tshwane, **Menlyn Spatial Development Framework**, 2012.
- Gauteng Province, **Gauteng Spatial Development Framework: 2011**.
- Gauteng Province, **Gauteng 25 Year Integrated Transport master Plan** : November 2013
- Gauteng Province, **Biodiversity Plan** : 2015
- ITPD, **The Transit Orientated Development Standard**, New York, 2015.
- RSA, **National Development Plan: 2030**, National Planning Commission. 2013
- RSA, **Spatial Planning and Land Use Management Act**, 16 of 2013.
- RSA, **National Department of Agriculture, Norms and Standards for Land uses Change**: 2016
- World Bank, **Transforming Cities with Transit: Transit and Land use Integration for Sustainable urban Development**, January 2013.

**SPATIAL DEVELOPMENT FRAMEWORK 2017:  
REGION 7**



## TABLE OF CONTENTS

<b>ABBREVIATIONS</b>	i		
<b>GLOSSARY OF TERMS</b>	iv		
<b>PART ONE: INTRODUCTION</b>	1		
1.1 BACKGROUND	1		
1.2 LEGISLATIVE FRAMEWORK	1		
1.3 APPROACH AND METHODOLOGY	2		
1.4 THE USE OF THIS DOCUMENT	2		
<b>PART TWO: METROPOLITAN CONTEXT</b>	4		
2.1 POLICY FRAMEWORK			
2.1.1 National Development Plan; 2014	5	2.5 ENVIRONMENTAL STRUCTURING CONCEPT	21
2.1.2 Gauteng Spatial Development Framework: 2011 5		2.5.1 Heritage and Cultural Sites	21
2.1.3 Gauteng 25 Year Integrated Transport Master Plan: 2013	6	2.5.2 Open Space and Conservation Areas	21
2.1.4 The Spatial Vision Of The City	7	2.5.3 Rural Management	23
2.1.5 Metropolitan Spatial Development Framework	8		
2.1.6 Tshwane Integrated Rapid Public Transport Network (IRPTN) Strategy	8	<b>PART THREE: REGIONAL ANALYSIS</b>	
2.1.7 Tshwane Comprehensive Integrated Transport Plan (CITP)	8	3.1 LOCALITY	25
2.2 THE CITY STRUCTURE	10	3.2 AREA	26
2.2.1 Hierarchy Of Nodes	10	3.3 DEMOGRAPHIC INFO	27
2.2.2 Specialised Activity Areas	11	3.4 WARD PRIORITIES FOR 2015/16	28
2.3 GROWTH MANAGEMENT	12	3.5 REGIONAL CHARACTERISTICS	29
2.3.1 Urban Edge	13	3.6 STRUCTURING ELEMENTS	29
2.3.2 Tshwane Retail Strategy	13	3.7 ECONOMIC BASE	29
2.3.3 Retail In Urban Areas	13	3.8 PHYSICAL ENVIRONMENT	29
2.4 MOVEMENT AND CONNECTIVITY	14	3.8.1 Natural Structuring Elements	30
2.4.1 Urban Form and Transport Integration	15	3.8.2 Strategic Land Uses	30
2.4.2 The Basis of an Efficient Metropolitan Movement System In Tshwane	17	3.8.3 Nodes	30
		3.8.4 Linear Activity Areas	30
		3.8.5 Movement and Transport Systems	30
		3.8.6 Service Infrastructure	30
		3.9 KEY ISSUES AND S.W.O.T ANALYSIS	30
		3.9.1 Strengths	31
		3.9.2 Weaknesses	31
		3.9.3 Opportunities	32
		3.9.4 Threats	32
		3.9.5 Role and Function	32
		3.10 RESIDENTIAL DENSITIES IN REGION 7	32
		3.11 TRENDS IN REGION 7	33

**PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK**

4.1	INTRODUCTION	35
4.2	REGIONAL NODES / LOCAL NODES	35
4.2.1	BRONKHORSTSPRUIT	35
4.2.2	RETAIL STRATEGY	36
4.3	MAJOR EMPLOYMENT OPPORTUNITY AREAS	37
4.3.1	Industrial / Mixed Use Areas	37
4.4	FUNCTIONAL ROAD CLASIFICATION AND ACTIVITY MATRIX	38
4.5	DEVELOPMENT GUIDELINES	43
4.6	RESIDENTIAL	49
4.6.1	Concentration Zones	51
4.6.2	Linear Zones (Corridors and Spines)	52
4.6.3	Suburban Densification Zones	53
4.6.4	Low-Density Zones	54
4.6.5	Rural Divisions	54
4.7	SUSTAINABLE HUMAN SETTLEMENTS	55
4.7.1	Informal Settlement Upgrades and Relocation	55
4.7.2	Social Housing	55
4.8	MOVEMENT SYSTEMS	57
4.8.1	Planning Projects of a Strategic Nature	58
4.8.2	RSDF movement System Proposals	58
4.8.3	Rail	58
4.8.4	Bus Rapid Transit (IRPTN System)	58
4.9	RURAL AREA	59
4.9.1	Major Rural Roads	59
4.9.2	Urban Edge	60
4.9.3	Development Edge	60
4.9.4	Future Urban Development Areas	60
4.9.5	Management Zones	61
4.9.6	Agricultural High Potential Areas	61
4.9.7	Sensitive Protected Areas/Biodiversity Zone	61
4.9.8	Sensitive Ridge Areas	62
4.9.9	Heritage and Cultural Protected Areas	62

4.9.10	Tourism Potential Places/Areas	62
4.9.11	Conservancies	63
4.9.12	Game and Nature Reserves	63
4.9.13	Mines and Places of Manufacturing	63
4.9.14	Human Settlements	63
4.9.15	Community Service Centres	64
4.10	OPEN SPACE AND ENVIRONMENTAL AREAS	66
4.11	WETLAND MANAGEMENT PLAN FOR TSHWANE	70
4.12	SOCIAL FACILITY PLANNING	71

**PART FIVE: DETAIL PRECINCT PLANS**

5.1	EXISTING PRECINCT PLANS	73
5.1.1	Bronkhorstspuit Node Plan	73
5.1.2	Bronkhorstspuit Project Proposals	75
5.2	REQUIRED PRECINCT PLANS (NON-PRIORITISED)	77
5.3	PLANNING POLICY RATIONALISATION	77

PART SIX: REFERENCE	78
---------------------	----



BRT

- Bus Rapid Transit

CBD

- Central Business District

CDS

- City Development Strategy

COT

- City of Tshwane

EMF

- Environmental Management Framework

GLA

- Gross Leasable Area

GSDF

- Gauteng Spatial Development Framework

GITP

- Gauteng 25-Year Integrated Transport Master Plan

IDF

- Integrated Development Framework

IDP

- Integrated Development Plan

ITP

- Integrated Transport Plan

LSDF

- Local Spatial Development framework

MSDF

- Metropolitan Spatial Development Framework

NDF

National Development Plan, Vision for 2030.

NMT

- No Motorized Transport

UP

- University of Pretoria

RSDF

- Regional Spatial Development Framework

SDF

- Spatial Development Framework

SPLUMA

- Spatial Planning and Land Use Management Act, 16 of 2013.

SPTN

- Strategic Public Transport Network

TOSF

- Tshwane Open Space Framework

ZOC

- As per CDS: Zone of Choice

**ACTIVITY NODES**

- Areas of concentration of mixed land uses.

**ACTIVITY SPINES**

- Mobility routes connect a number of nodes or mixed use areas, serving as the main public transport channels of the region. These routes could support linear development although not necessarily continuous along its length. Higher order land uses should be accommodated in the nodes, but lower order land uses could develop in a linear fashion subject to alternative access opportunities. Densification along these spines should be encouraged to maximise the public transport opportunities provided by these routes.

**ACTIVITY STREETS**

- Local collector roads supporting lower order land uses in a linear fashion along its length. Direct access to land uses is provided compromising mobility for activity. Development along activity streets should be permitted in accordance with a local spatial development framework.

**CAPITAL CORE**

- The Tshwane Inner city is identified as the Capital Core as it is the city's first order node amongst all metropolitan nodes. Traditionally, the inner city is also the Central Business District (CBD) of major cities. Tshwane is no different.
- The Capital Core must:
  - Be the focal point for housing government departments
  - Be developed to a higher than average density, supporting all principles of smart growth.

**CITY OF TSHWANE METROPOLITAN MUNICIPALITY LAND USE MANAGEMENT BY –LAW**

- To give effect to "Municipal Planning" as contemplated in the Constitution of the Republic of South Africa, 1996, and in so doing to lay down and consolidate processes and procedures, to facilitate and make arrangements for the implementation of land development and land development applications, spatial planning and a Land Use

Scheme within the jurisdiction of the City of Tshwane, in line with the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013), to provide for the processes and procedures of a Municipal Planning and Appeals Tribunal and to provide for matters incidental thereto.

**COMPACT**

- Compact urban form increases efficiency in the way people can use the city and in the way the city is managed. More people live in a smaller area in a compact city and this higher density allows for efficient provision of public transport, social and other services. The opposite of a compact city is urban sprawl.

**CONCENTRATION ZONES**

- The Concentration Zones are the primary focus areas for high density, medium to high-rise residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

**COT**

- City of Tshwane.

**DENSIFICATION**

- Increase of residential density following the guidelines of the Compaction and Densification Strategy, May 2005.

**EMERGING NODES**

- Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable.

Emerging nodes will be managed subject to growth management principles.

#### INDUSTRIAL USES

- As referred to on the framework plans includes: light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

#### INFILL

- The development of undeveloped or underdeveloped land within a developed urban area with infrastructure available.

#### INNER CITY

- An area in the City of Tshwane comprising the Pretoria Central Business District and surrounding residential areas.

#### INTENSIFICATION

- The process of intensifying activities or land use by increasing floor area, height or number of activities.

#### LIVABLE STREETS

- Liveable Streets are defined as streets for everyone that are planned, designed, and operated to enable a network of safe access for all users including pedestrians, bicyclists, and transit riders

#### LINEAR ZONES

- As per Compaction and Densification Strategy referring to activity spines and linear channels forming a lattice of movement.

#### LOWER ORDER LAND USES

- Land uses that are not usually associated with high impact on the surrounding environment and with low traffic generating characteristics.

#### METROPOLITAN NODES

- These are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the Tshwane context, Metropolitan

nodes are those nodes within the City (economically) benefiting primarily from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the rate of growth, provide infrastructure in line with the growth management plan and maintain the urban environment.

#### MIXED USES

- Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional etc. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. A Mixed-uses may refer to retail at street level, institutional on the floor above and residential on the upper floors, or only one use per erf. Principles regarding retail, commercial and industrial uses/rights are still applicable as indicated in this document. Mixed uses in an industrial area may include industry, commercial and retail uses.

#### NODES

- A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport nodes such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

#### OFFICE USES

- These areas may accommodate land uses such as offices, retail industries, small places of refreshment, fitness centres, hairdressers, nail bars, medical consulting rooms, medical workshops such as a dental technician, prosthetist, orthotist, pathologists, optometrist technician and other businesses such as a beauty salon, pet salon, beauty/health spa, funeral undertaker, place of instruction and uses subservient to the main use. Land uses will be considered on merit, shall be compatible to the surrounding area and shall focus on serving the local community.

## PUBLIC TRANSPORT FACILITIES

- Including train stations, taxi and bus facilities with ancillary uses.

## SPLUMA

- Spatial Planning and Land Use Management Act (Act 16 of 2013).

## SUBURBAN DENSIFICATION

- As per Densification and Compaction Strategy: Residential densification in areas that are not located in concentration zones or along linear development spines.

## SUSTAINABLE DEVELOPMENT

- Development that has integrated social, economic and environmental factors into planning, implementation and decision-making, so as to ensure that it serves present and future generations.(In terms of SPLUMA Objectives)

## SUSTAINABLE HUMAN SETTLEMENTS

- The term 'sustainable human settlement' refers to a spatial concept that has two areas of emphasis: 1) human 2) sustainable (in terms of SPLUMA Principles) "The human-centred approach emphasises that a central purpose of planning is to ensure that the developmental needs and activities of people living in settlements are catered for and, in particular, that opportunities for people to achieve their full potential are maximised through their own efforts. This approach, rather than being purely cost- or technology-driven, is people-driven and democratic". It makes such settlements socially, politically and economically sustainable. But there is also the dimension of environmental sustainability.

## TRANSPORT-ORIENTATED DEVELOPMENT (TOD)

- Transport-orientated development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (i.e.

a train station, metro station, BRT station, or taxi rank, surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TOD's are generally located within a radius of 500 to 700 m from a transit stop, as this is considered to be a convenient distance for pedestrians.

## TRANSPORT CORRIDORS

- For the purpose of this RSDF these routes are defined as the approved BRT routes within Region 3. They are regarded as the main public transport channels of the region, which implies the prioritising of public transport and non – motorised transport over private transport. Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate. Densification along these corridors should be encouraged to maximise the public transport opportunities provided by these routes. Mixed uses fronting the trunk route will also be supported in certain areas along the trunk route and not only at stations.

## URBAN CORES

- Former township areas were developed as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme Grant (NDPG) is a nationally funded programme that aims to address the improved quality of environment in urban cores.

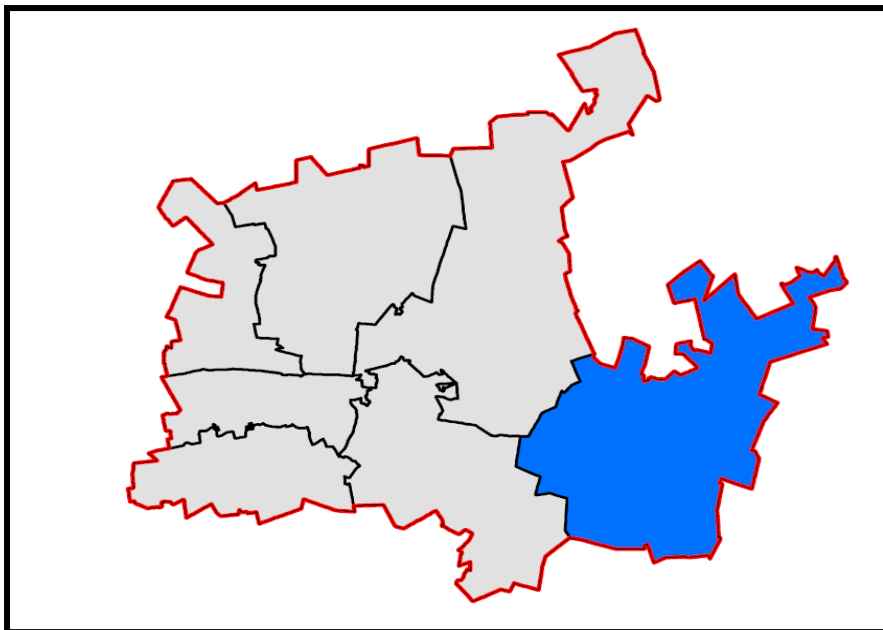
## 1. INTRODUCTION

### 1.1 BACKGROUND

The City of Tshwane (COT) embarked on processes to compile seven Regional Spatial Development Frameworks (RSDF's) for the administrative planning regions of the metropolitan area in 2011.

The RSDF's needed to be inter-linked and also support the Tshwane Metropolitan Spatial Development Framework (MSDF) as well as the Tshwane City Development Strategy (CDS), Tshwane Compaction and Densification Strategy (2005) and the Tshwane Open Space Framework (TOSF).

This RSDF for Region 7 was therefore prepared within the context of the MSDF, the CDS and in support of the other RSDF's.



### 1.2 LEGISLATIVE FRAMEWORK

- The MSA (Municipal Systems Act, 5000 (Act 32 of 2000)) determines that a municipality must adopt a framework for integrated development in its area in the form of an Integrated Development Plan (IDP) (Section 27).
- A Spatial Development Framework, which guides and informs all development forms part of the IDP (Section 35 (2)).
- The Gauteng Planning and Development Act, 2003 (Act 3 of 2003) determines that municipalities must formulate spatial development frameworks for their areas (Section 31 and 32).
- The content of these plans "shall be in the form of maps or a map together with explanatory report of the desired spatial form of the municipality".

A Spatial Development Framework must:

- Indicate where public and private development infrastructure investment should take place.
- Indicate desired development and land use patterns for different areas.
- Indicate where development of particular land uses should be discouraged or restricted.
- Provide broad indication of the areas where priority spending should take place.
- Shall provide guidelines for development and land use decision-making by the municipality.

This Regional Spatial Development Framework was prepared in accordance with the above mentioned provisions.



### 1.3 APPROACH AND METHODOLOGY

The approach to the preparation of the RSDF was based on the following approved policy and plans:

- National Development Plan; 2014
- Gauteng Spatial Development Framework: 2011.
- Gauteng 25- Year Integrated Transport Master Plan: 2013
- The MSDF objectives, vision and supporting strategies as well as development issues were used to inform the role and function of the region. (MSDF 2017).
- City of Tshwane, Rapid Transit (TRT): Spatial Development Policy: Density and Intensification Guidelines, 2014.
- The City of Tshwane Comprehensive Integrated Transport Plan: 2016
- The City of Tshwane Bioregional Plan: 2016.

The framework was also based on best practices applied internationally on the development of MSDF / RSDF. See references used at the end of the document in the compilation of the framework. Further this framework has been compiled inter alia in terms of the relevant provincial legislation and the Spatial Planning and Land Use Management Act, 16 of 2013.

The RSDF 2017: Region 7 was prepared in accordance with the following mentioned principles.

- Indicate where densification should take place and promote economic and social inclusion. (SPLUMA, Objectives and Principles 7(a))
- Indicate how urban regeneration should take place in the Region in order to stimulate land markets (SPLUMA, Objectives and Principles 7(a)).
- Indicate where public and private development infrastructure investment should take place. (SPLUMA, Objectives and Principles 7(a))
- Indicate desired development and land use patterns in the Region 1 in order to achieve mixed income housing, community, educational and job opportunities that support the Bus Rapid Transit system. SPLUMA, Objectives and Principles 7(a))
- Provide for the opportunity to walk and cycle in the Region and move away from car orientated planning.

- Provide broad indication of the areas where priority spending should take place in the Region and what the impact on services will be. (SPLUMA, Objectives and Principles 7(a))
- Shall provide guidelines for development and land use decision-making by the municipality in the Region 7.

This framework obtains its guides, objectives and principles from the relevant National, Provincial and Local Planning Policies as prescribed by the Spatial Planning and Land Use Management Act, (Act 16 of 2013). In the following section the different policies and guidelines are discussed that are applicable to corridor planning.

### 1.4 THE USE OF THIS DOCUMENT

As a point of departure in terms of the governance model adopted by Council, it should be understood that no decision on site specific development application can have the effect of materially amending the RSDF's or undermine the IDP with reference to Section 35 of the MSA.

The burden on a local authority in the preparation of the IDP and the SDF's with regard to public participation limits the power of a local authority to, without proper consideration amend, undermine or redirect policy. The citizenry within the jurisdiction of the City of Tshwane has the right to be able to rely on the content of the IDP and SDF's and any amendment thereto should not be taken lightly.

In particular, no development proposal may undermine the budgetary provisions contained in the IDP read with the SDF. Should such development proposals have merit, they should be tested against the overall objectives of the policy documentation and formally incorporated to ensure integrated, funded and sustainable development takes place, that reach the objectives set out in the policy documents. The RSDF's indicate where and how discretionary powers are granted to deal with applications on merit. A merit deviation should be based on **specific criteria** or **threshold requirements**, which requirements shall in the sole opinion of the local authority be complied with, in order to deviate or amend the RSDF or any component thereof. Keeping in mind that if it is so material as to impact on the overall objectives of the SDF's or IDP, that it can only be formally amended by the legislative body of Council, with public participation.

## MAPS AND PRINCIPLES

The different principles as indicated in Part 4 must be interpreted per Map and against the principles as specified in the document. For example density applications will be evaluated according to the density map and accompanying principles as specified in Part 4. Alternative land uses and activities will be evaluated according to the movement and activity map and accompanying principles. The same principles will apply for the Rural map in Part 4. The composite map at the end of the document must only be regarded as a schematic representation of the principles.

## INFRASTRUCTURE

Development proposals, whether in line with these documents or on merit, should only be supported if infrastructure to the satisfaction of the local authority can be provided in line with the overall IDP. This should include the provision of infrastructure by developers that may have an impact on the operational budget of Council. The availability of infrastructure shall not be regarded as sufficient support for a development proposal. The prioritisation and provision of infrastructure is within the sole discretion of the local authority and shall be considered and evaluated based on accumulative impact and prioritisation of resources.

## TRANSITIONAL ARRANGEMENTS

In order for the City of Tshwane to ensure that pending applications that were submitted in line with the rescinded MSDF/SDF's or RSDF's to be substituted by the reviewed MSDF and RSDF's, to be effectively and efficiently evaluated against policy the following transitional measures shall apply: Any development application which relied on the provisions of the MSDF's or RSDF's in support of consideration of the said applications, that are pending before the City of Tshwane at the time of the adoption by Council of the reviewed MSDF's and RSDF's, shall be dealt with as if these revised documents have not been adopted.

These pending development applications shall be finalised based on the policy provisions contained the rescinded MSDF's and RSDF's or any component of these documents; provided that where applications are

pending before the local authority and the reviewed MSDF's and RSDF's are in support of an application that the local authority in their sole discretion and interpretation of whether in support or not, the application may be considered against the reviewed MSDF's and RSDF's. This provision shall not be applicable if the application by evaluation against the reviewed MSDF's and RSDF's shall have the result of negatively impacting on the rights of an applicant.

The RSDF is not the sole mechanism in determining the suitability of any potential change in land use, but should be used in conjunction with requirements as may be determined by infrastructure and other relevant aspects that may not be contained in the RSDF.

## 2. PART 2: METROPOLITAN CONTEXT

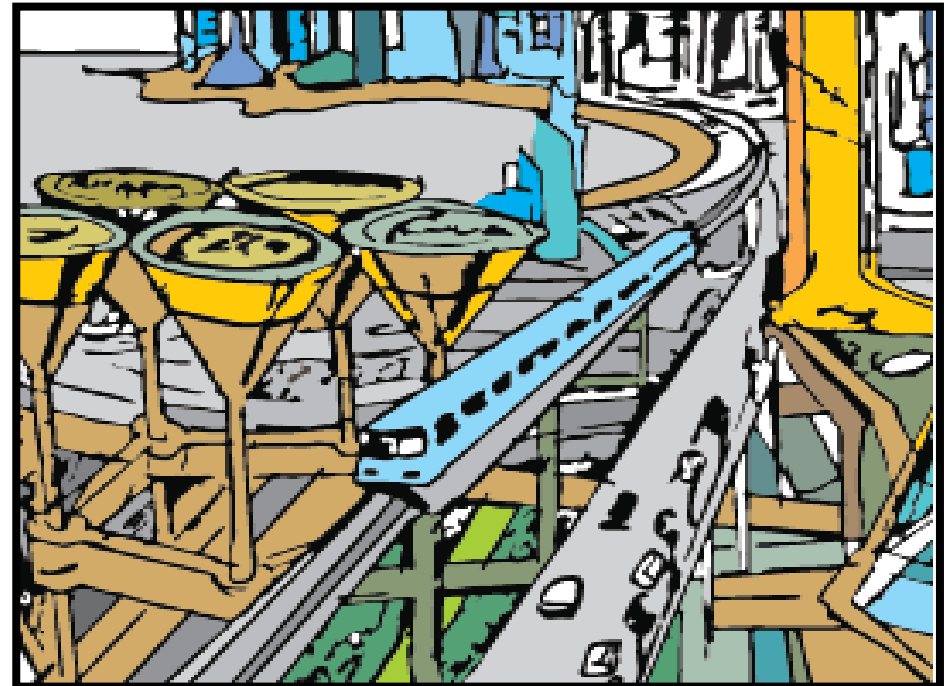
### 2.1 POLICY FRAMEWORK

#### 2.1.1 NATIONAL DEVELOPMENT PLAN; VISION FOR 2030: 2014

The overarching principles for spatial development in terms of the National Development Plan (pg. 246) is that all spatial development should conform to the following principles:

- **Spatial justice** – Unfair allocation of public resources between areas must be reversed and the confining of particular groups to limited space must be abandoned. The increasing of urban population density while improving the liveability of the cities and providing affordable public transport, is seen as complementary strategies to this principle (p 16). Transportation networks are seen as the key to spatial transformation (p 238) and the accommodation of diverse household types is encouraged (p 254).
- **Spatial sustainability** – Sustainable patterns of consumption and production must be supported and ways for living that do not damage the natural environment. **Walkable neighbourhoods**, for example, reduce the need to travel and limit greenhouse gas emissions. In terms of this principle a clear strategy for densification of cities through land use-use planning is proposed (pg. 33).
- **Spatial resilience** – Reduce the vulnerability to environmental degradation, resource scarcity and climate shocks. Ecological systems should be protected and replenished and support the transition to environmental sustainability (pg. 256)
- **Spatial quality** – The aesthetic and functional features of housing and the built environment need to be improved to create **more liveable, vibrant and valued places**. Prioritising public transport and the **discouragement of private car** users is seen as one of the strategies in terms of this principle (pg.164).

- **Spatial efficiency** – Productive activity and **job creation must be supported**. Efficient commuting patterns and circulation of goods and services must be encouraged. Further procedures must not impose unnecessary costs on development. Unlocking development potential is seen as part of the spatial vision of the development plan (pg. 247)



2.1.2 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK: 2011.

**G2055** initiative is an initiative aimed at preparing the Gauteng City Region for a population of approximately 28 million people by 2055. The G2055 vision is for Gauteng to have a strong knowledge capital, be the hub of innovation to Africa, and be a liveable, prosperous, competitive, equitable, accessible and sustainable City region. The initiative is spatially addressed in the Gauteng Spatial Development Framework (approved in February 2011).

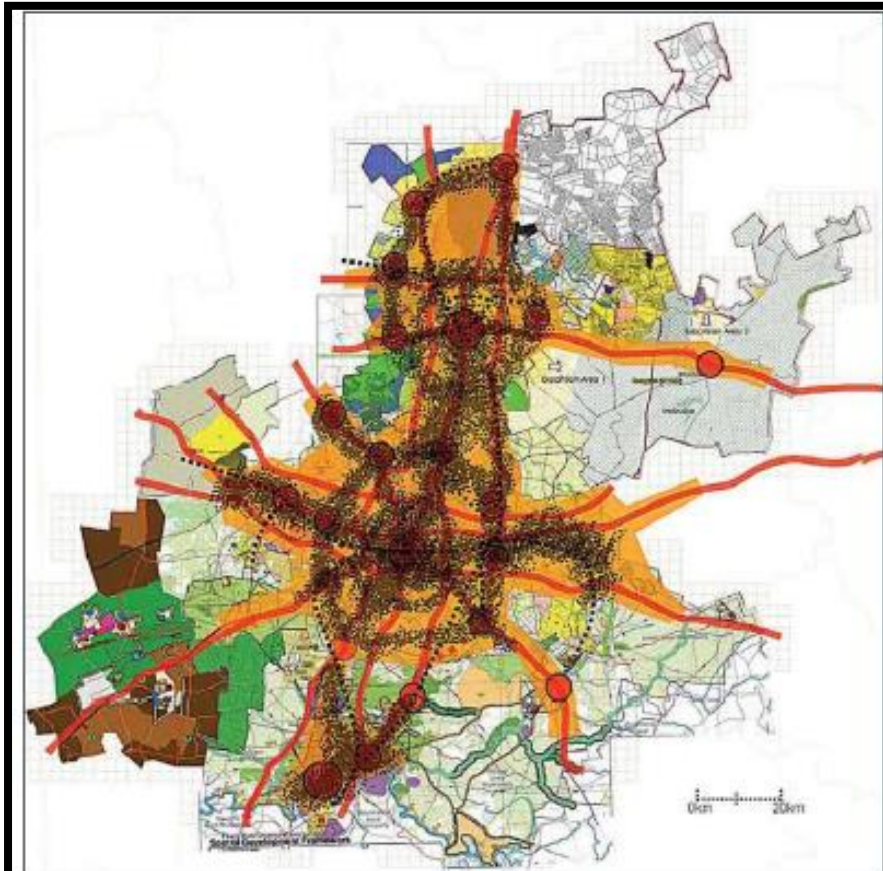


Figure 2-17: Proposed consolidation of urban development in Gauteng Province

Source: Gauteng Spatial Development Framework: 2011

The Gauteng Spatial Development Framework (GSDF) provides a common future spatial structure for the Gauteng Province and is clear on the fact that growth must be structured and directed (pg. 10).

The primary structuring elements identified within the GSDF are those of:

- urban mixed-use activity nodes
- open space and green system
- public transit and movement routes
- urban corridors and activity spines

Given the comprehensive system of discernible urban corridors and public transport potential within Gauteng, consolidation of **urban development should be concentrated around existing primary urban centres, urban nodes, and urban corridors** and along urban activity spines. (pg.52)

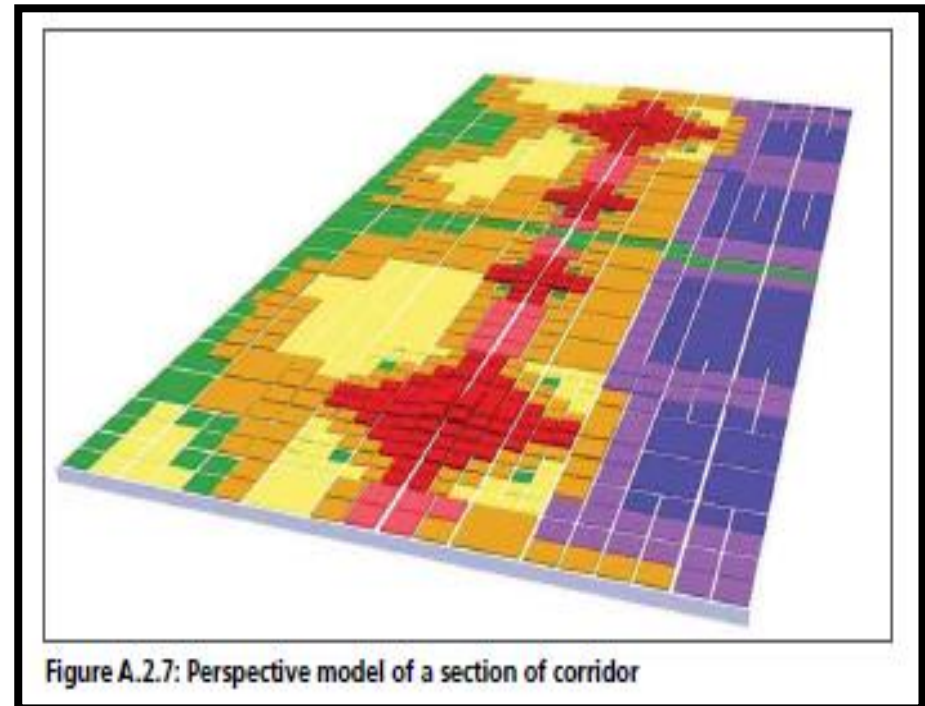


Figure A.2.7: Perspective model of a section of corridor

Source: Gauteng Spatial Development Framework: 2011



In terms of corridor development, the GSDF seeks to achieve the following:

- The containment of urban sprawl by way of growth management that seeks to advance compaction, **residential densification**, and in-fill development, and mixed land uses within the existing urban fabric will promote walking and cycling (pg. 65).
- The social and **economic integration** of disadvantaged communities into the urban system, particularly those on the urban periphery;
- The establishment of a hierarchy of nodes coupled with the improvement of **linkages and connectivity** between these nodes and areas of economic opportunity (pg. 86);
- **Land use-public transport integration** through nodal and corridor development (pg;96)
- The promotion of viable public transport systems and **reduction of reliance on private mobility** with strong emphasis on **densification along the priority public transport routes**, especially rail and BRT routes which form the basis of the IRPTN movement system (pg. 83);
- Public transport routes become the priority areas for **densification** and infill development;

Evident from these principles is the strong emphasis on public transport becoming the basis of the 'Movement system' in the province, and urban corridors, activity spines and public transport routes. Creating the framework for future processes of **densification** and intensification, including Transport Orientated Development (TOD) comprising mixed uses around road and rail based public transport facilities (p 136).

### 2.1.3. GAUTENG 25 YEAR INTEGRATED TRANSPORT MASTER PLAN: 2013

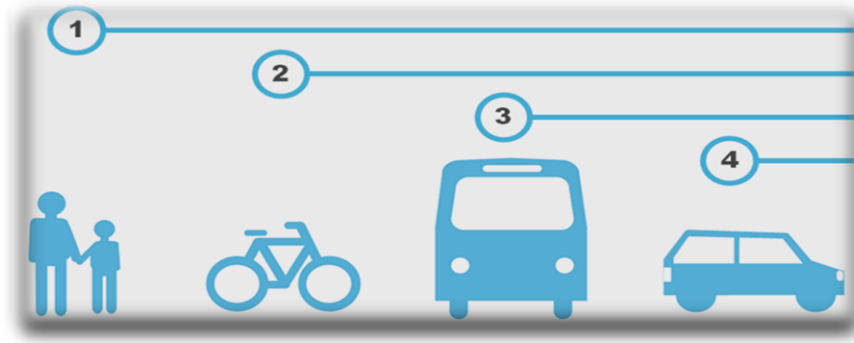
The plan proposes a radical paradigm shift in spatial and transport planning. It serves as a point of departure from apartheid spatial planning, land use and mobility patterns and ushers in an innovative way of structuring our future societal development. It serves as a road map for more detailed planning, particularly in public transport, land use, human resource development and socio-economic development. It is underpinned by founding principles such as economic beneficiation; doing things in a smart and sustainable manner; and integrating transport networks, modes and services interventions" have been identified of which the following two clusters relate to BRT corridor planning (p 23):

- Land Use Development
  - Subsidised housing provision within urban core areas
  - Land use densification in support of public transport
- Strategic Public Transport Network
  - Mainstreaming non-motorised transport (NMT)
  - Reinforcing passenger rail network as the system's backbone
  - Extending the integrated rapid and road-based public transport networks

Other important principles are the promotion of NMT as part of a sustainable transport system, e.g. include NMT (walking and cycling) as a feeder system to all public transport systems and redesigning and/or creating a built environment (urban and rural) to inclusively accommodate NMT users according to universal design principles as may be appropriate in terms of social and economic objectives (p 71).



**Diagrammatic representation of the modal hierarchy approach depicting an operational Category that favours the NMT modes**



Source: Gauteng 25 Year integrated Transport master Plan: 2013

Extensive land use densification and more efficient land use and transportation integration around the provincial public transport network will make a significant contribution towards enhancing the viability of public transport in the province. This would require large scale processes of infill development, densification and redevelopment of older urban areas in the province and the containment of urban sprawl by way of a comprehensive urban development boundary for the Gauteng City Region. It also proposes developing spatial compacts which promote processes of densification, intensification and infill development within the existing urban footprint of towns and cities (p 136).

Municipalities should seek to achieve the following density guidelines in various functional areas:

- High Density: 80 units per hectare and higher within 1 kilometre from the provincial IRPTN network and activity nodes served by this network;
- Medium Density: 30 to 79 units per hectare within 1 kilometre from the remaining provincial

In terms of the Provincial Transport Master Plan all municipalities in Gauteng should identifying priority nodes/areas along these corridors and

**compile detailed Precinct Plans** for these areas (pg.32). The plan should be based on the following:

- Promote processes of densification and infill development.
- Reserving a percentage of spare bulk engineering services capacity to accommodate development along priority public transport corridors.
- Relaxing parking requirements for higher density developments along public transport Corridors.
- Facilitating and promoting non-motorised transport within the priority public corridor development areas by way of dedicated pedestrian and cycling lanes.
- Charging users for parking directly as opposed to hiding the true cost of parking in increased rent or tax subsidies.
- Improving public transport infrastructure significantly and subsidizing public transport costs.
- Road space reallocation aiming to re-balance provision between private cars and more sustainable modes.

#### **2.1.4 THE SPATIAL VISION OF THE CITY**

The Spatial Vision of the City of Tshwane is to conduct integrated planning, maximising on spatial efficiencies for optimal service delivery.

- A Spatially Efficient Capital City that is Sustainable, Competitive and Resilient:
- Sustainability: Optimising the use of land through densification, infill and consolidation, resulting in a city with spatially integrated equal opportunities, correcting spatial imbalances, creating sustainable settlements and advancing social equity.
- Competitiveness: Instilling investor confidence by ensuring a well-managed quality built environment through enforcement of relevant legislation, maintenance and management of infrastructure and

strategic investment in infrastructure focus areas targeting broad-based economic growth.

- Resilience: Being innovative and adaptable, whilst maximizing spatial opportunities and in turn maximizing economic growth opportunities through strategic investment decisions.

### 2.1.5 METROPOLITAN SPATIAL DEVELOPMENT FRAMEWORK. (2017)

The MSDF represents the spatial interpretation of desired growth and development directions for the City. It spatially focuses economic and infrastructure development and gives spatial expression to the development plans above (CDS and IDP), both for the long-term and the medium term.

The purpose of a metropolitan spatial framework for the city is to provide a spatial representation of the city vision and to be a tool to integrate all aspects of spatial (physical) planning such as land use planning; planning for pedestrian movement vehicular and other movement patterns; planning regarding buildings and built-up areas; planning of open space systems; planning of roads and other service infrastructure; as well as to guide all decision-making processes regarding spatial (physical) development.

It is the intention of the MSDF to restructure our fragmented, inequitable and inefficient urban form to create a more equitable, efficient and environmentally and financially sustainable urban dispensation in line with current legislation and policy.

The compaction and functional integration of the city are normative directives from national level, and implies:

- Higher density urban development,
- Greater mixing of compatible land uses and
- Focussed concentration of high-density residential land uses and intensification of non-residential land uses in nodes, around transit stations (such as the Gautrain, BRT, Rail and other formalised intermodal transport facilities).

### 2.1.6 TSHWANE INTEGRATED RAPID PUBLIC TRANSPORT NETWORK (IRPTN) STRATEGY (APPROVED 21 NOVEMBER 2012) <sup>1081</sup>

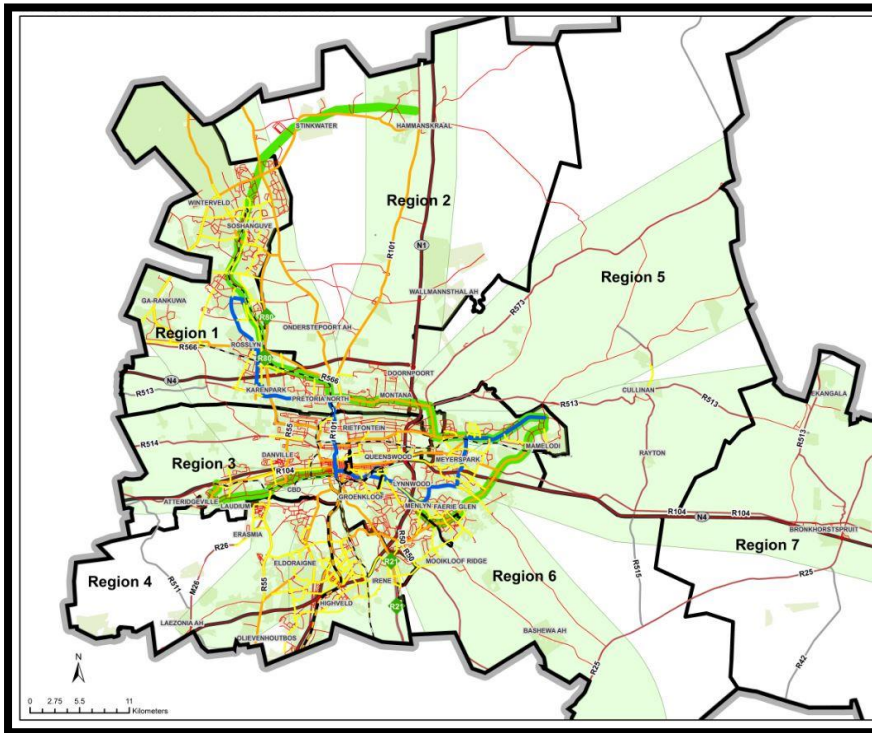
The purpose of the Policy is to provide the City with Operational guidelines for the IRPTN network. The document also provides guidelines in terms of the preparation of planning for IRPTN corridors. The key characteristics of strategy include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 500 - 900 metres of a transit station
- Reduced parking ratios for private cars.

### 2.1.7 TSHWANE COMPREHENSIVE INTEGRATED TRANSPORT PLAN (CITP) (APPROVED 6 JUNE 2016)

The Comprehensive Integrated Transport Plan set out the transport goals and objectives for the City that are aligned with the City's mission and are the targets which the City aims to achieve:

- Plan and develop a transport system that improves accessibility and mobility whilst **enhancing social inclusion**;
- Provide a fully integrated public transport system;
- Develop a transport system that drives economic development;
- Improve the safety and security of the transport system;
- Develop a transport system that reflects the image of the city;
- Develop an efficient, effective, development orientated public transport system and **integrates land use and public transport plans**;
- Develop a transport system that is environmentally sustainable.



The CITP is built on the following five key pillars. A few policies and strategies are provided for each pillar as a means of illustration:

- I. Sustainable transport:
  - Provide a transport system with low negative environmental costs yet high positive social value, which supports resource efficient economic development.
- II. Public-transport orientated:
  - **Prioritising public transport and Non-Motorised Transport (walking and cycling) over private transport;**
  - Provide public transport access to all residents, including tourists and visitors

- **Land-use to support and promote public transport** e.g. linking economic nodes with public transport, increase **land-use densities along routes** and around modal transfer facilities.

### III. Integrated transport:

- Integration of land-use with transport, e.g. **densification along public transport corridors;**
- Integrated planning and implementation between City of Tshwane departments, as well as between the City and other national and provincial authorities.

### IV. Transport in support of a Smart City:

- Affordability and accessibility of technology e.g. use of electronic communication connections for transport, safety and security (urban traffic control, passenger information, CCTV cameras, etc.);
- Being “smart” by using scarce resources more effectively and through the application of suitable technology e.g. automatic fare collection using smart cards;
- Provide modern public transport modes e.g. BRT, LRT, Gautrain.

### V. People-friendly:

- Social inclusion, with an emphasis on access, through the availability of public transport, to opportunities and services;
- Provide affordable, easy to use, safe and secure public transport, including universal access and facilities for walking and cycling.

## 2.2 THE CITY STRUCTURE

The CoT covers an area of 6260 km<sup>2</sup> and is the result of an amalgamation of the previous City of Tshwane, which was established in December 2000, and the three Metsweding Municipalities (Nokeng tsa Temane Local Municipality, Kungwini Local Municipality, Metsweding District Municipality), found directly east and south east of the previous City of Tshwane. The City of Tshwane (CoT), found within the Gauteng Province, is bordered by Limpopo to the north, Mpumalanga to the east, the Ekurhuleni and City of Johannesburg Metropolitan Municipalities to the south and North West to the west.

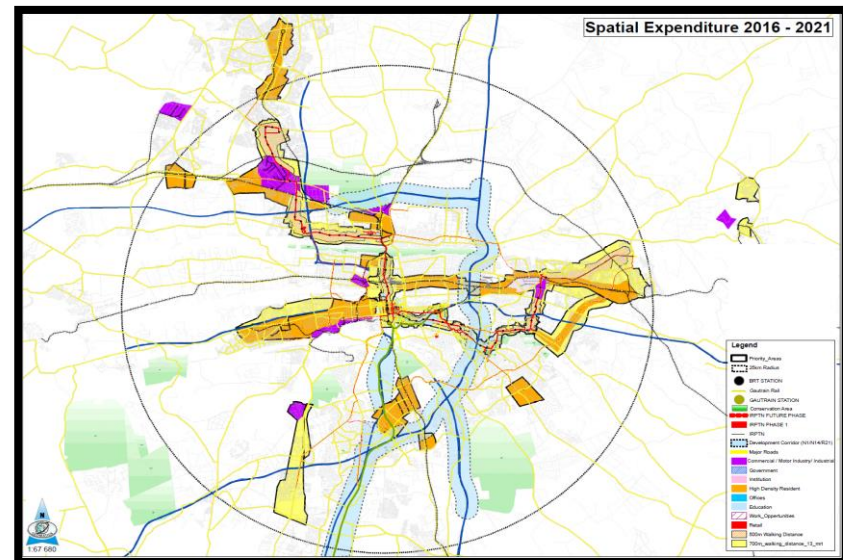
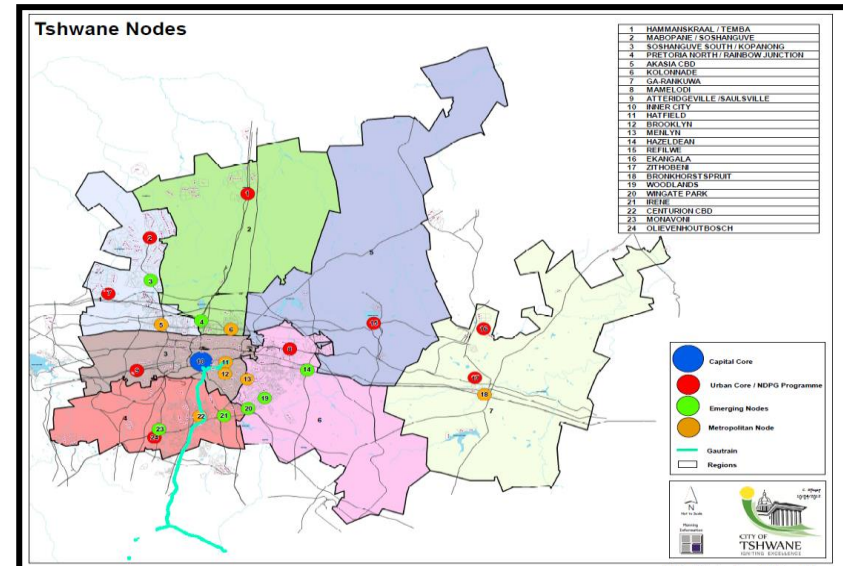
With Gauteng being at a total area of 18 178 km<sup>2</sup>, Tshwane, at 6260 km<sup>2</sup>, covers just more than a third of the surface area of the entire province.

Tshwane consists of 7 planning regions each with their own unique characteristics.

### 2.2.1 HIERARCHY OF NODES

Understanding that the current needs far outweigh the resources, it is important that the City focuses on the opportunities that exist for exponential growth and investment in the long term. These opportunities will be determined within the spatial vision by indicating where growth will occur in transport, housing, energy, water, recreation, education, health infrastructure and services. As explained by the smart growth concept. The spatial plan will promote efficient and effective resource allocation, ensuring that resources such as infrastructure are delivered in the right place and at the right time. This spatial plan also provides a sense of certainty for the future, and thus, investor confidence.

The key issue is that nodes within the city do not compete but complement and support each other so that the synergies between them maximise the potential of the City as a whole.





An important distinction is made between four nodal typologies i.e.

1. Metropolitan Nodes / TOD - these are primary nodes of the highest order. These nodes accommodate the highest degree of service specialisation and offer the widest range of services. Often, metropolitan nodes will have regional/provincial relevance. In the context of Tshwane, Metropolitan nodes are those nodes within the City benefiting from the investment of the private sector. Equally important is that these nodes serve as economic hubs and focal points for employment opportunities. The role of the public sector in such nodes is to manage the pace of growth, provide infrastructure in line with the growth management plan and maintain the urban environment. Such localities are also where the most extensive land use rights, including densities, are likely to be supported, also in line with the growth management strategy.
2. Urban Cores- former township areas were as a result of forced relocation programmes. Inevitably, these townships grew to accommodate large populations of low income or unemployed people. The economic circumstance was clearly evident in the quality of the physical environment. Under the new government which was established in 1994, these township areas were identified, not as a blight in the urban fabric as previously thought of, but as beacons of opportunity, through the human capital that was concentrated within the various communities of the townships. Due to the great need that often belies such nodes; the government has to play a more active role in social and economic restructuring, especially in view of the limited private investment, relative to Metropolitan cores. The Neighbourhood Development Programme (NDPG) is a lead City programme and the main instrument 'township renewal'. Zithobeni, Ekangala and Refilwe are presented as Urban Cores.
3. Emerging nodes- over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the *potential* for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Cullinan is presented as Emerging nodes.

## 2.2.2 SPECIALISED ACTIVITY AREAS

There are nodes in the metropolitan area that are characterised by largely mono-functional land uses taking up large, concentrated and defined space. The character of the areas ranges from industrial to high technology smart industries, medical facilities, educational, research and conservation facilities. It is important to acknowledge these specialised activity areas not just in terms of their scale, but because of their sphere of influence in terms of generating movement, opportunities and linkages with other areas. These linkages do not only refer to physical linkages, but also to "connectivity" in a broader sense, such as between institutions of learning and research.

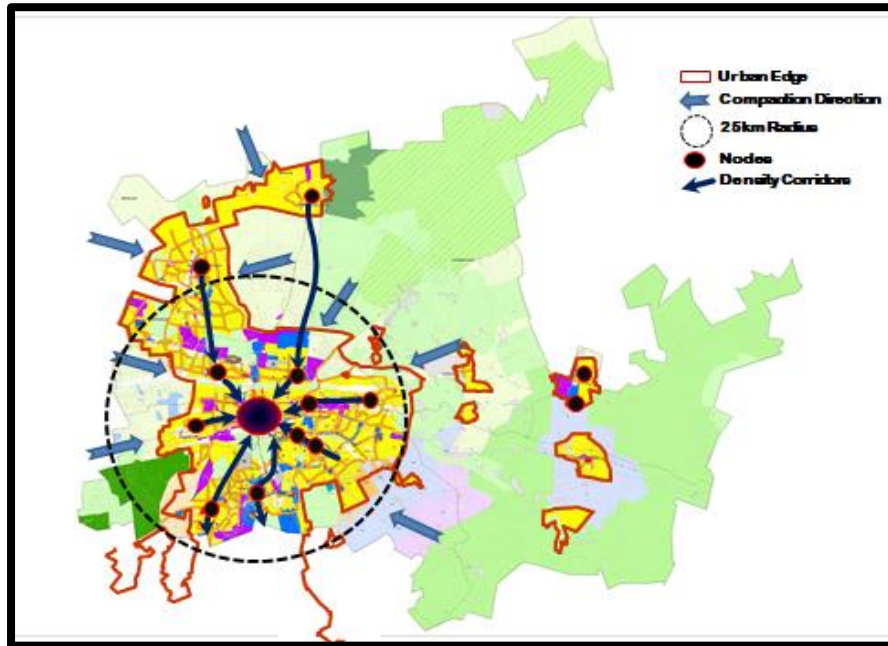
The Blue IQ initiative of the Gauteng Provincial government contributes significantly towards the specialised activity areas in Tshwane. Blue IQ aims to deliver strategic economic infrastructure to catalyse sustainable economic growth and to indirectly contribute to job creation; to influence the composition of exports, and influence the diversification of Gauteng's GGP. The Blue IQ initiative focuses on four growth areas:

- Business
- High value-added Manufacturing (high value-add)
- Logistics
- Information and Communication Technology (ICT)
- Tourism and conservation



### 2.3 GROWTH MANAGEMENT

Growth management is a spatial concept that encompasses all aspects that ensure efficient, optimal and sustainable development of the physical environment. A key principle of this concept is smart growth. The smart growth principle guides development such that resources and services are provided in such a manner that they meet the demands of the affected population over a long-term period.



The role of nodes within the growth management concept is key. Nodes are those parts of the city where development should be focused. The widest variety of services and opportunities should be provided at nodal points, at degrees relative to their nodal status.

The costs of urban sprawl and associated low densities are undeniable. Due to the limitation that development can be subjected to through the inability to provide bulk infrastructure, it is imperative that available infrastructure within the nodes are used optimally. This requires densification and intensification of land uses through compaction and infill developments. The maximisation of urban management within the nodes requires that these areas are specifically delineated within the greater developable areas for optimal growth.

The Compaction and Densification Strategy that was approved by the Council contains proposals for densification of the metropolitan area, which have local implications for each of the planning regions. The interpretation of the densification strategy for every region required special attention in the preparation of the RSDf 2017.

The strategy contains proposals for four key density zones:

- Concentration zones (high density / transit zones).
- Linear Zones i.e. corridors and spines (medium density).
- Suburban Densification (low to medium densities).

Densification and infill are sound urban development principles to pursue, but caution should be issued that most existing developed areas were not planned to accommodate higher densities and that in general the present road infrastructure cannot accommodate the additional traffic that densification implies. Densification should therefore be approached holistically striving to also support a better public transportation system as a dual development process.

Densification is necessary for a number of reasons but most importantly it should support the provision of all urban services as best as possible.

Looking at the city from a metropolitan perspective ideally, areas with higher densities should be in the following localities:

- As close as possible to the CBD.
- Close to metropolitan core areas and services.
- In the proximity of areas with job opportunities.

- Close to public transportation facilities (major road and railway facilities).

These delineations extend to the containment of areas where development is permissible to areas where little or no development is permissible- such as environmentally sensitive or conservation areas.

### 2.3.1 URBAN EDGE

One tool for providing delineations as discussed above is the urban edge. The urban edge will contribute to the achievement of the strategic objectives by conserving valuable environmental areas which would otherwise be compromised by development and promoting the use of existing infrastructure through redevelopment, infill development and densification within the edge, thus achieving development that is sustainable. The urban edge also encourages the agglomeration of economies within the edge, encouraging scattered secondary or emerging nodes to develop into consolidated primary nodes as opposed to leapfrog development. The edge also ensures the protection of land- an exhaustible resource- by encouraging Brownfield developments instead of Greenfield developments.

### 2.3.2 TSHWANE RETAIL STRATEGY

A Tshwane Retail Strategy was formulated to guide decision-making on the development and management of retail nodes for the city.

Retail development should balance the needs of the retail sector with the needs of communities, urban functionality and sustainable development and should make a positive contribution to the overall urban environment. The local authority will take a more facilitative approach toward retail developments, provided that the actual development is in line with and support the urban objectives and contribute to a more functional, equitable, convenient and attractive metropolitan environment. Retail development should therefore be approached holistically, looking at the economic, social and environmental aspects.

The principles that underlay the approach taken in retail developments in Tshwane can be summarised as follows:

- To allow market forces and the free economy to determine the trend and tempo of retail development within the parameters set by the Tshwane Retail Policy.
- The desirability of a retail facility will be influenced by the broader area and the specific site as well as the degree to which the retail development contributes to the enhancement of the overall environment and the achievement of metropolitan development goals, as set out in the MSDF.
- Retail developments must be sensitive towards its location and surrounding environment, and be designed and sited in such a way that it contributes to the overall quality of the environment and not detract from it. A number of qualitative aspects will therefore have to be considered when evaluating retail applications, such as urban design, landscaping, public transport, interfaces etc.
- Retail applications and the evaluation thereof have to take consideration of the local context, i.e. the same guidelines and criteria do not apply uniformly to all parts of the metropolitan area.

Because of the fact that Tshwane comprises a large number of diverse areas, each with its own history, level of maturity, growth, population characteristics etc., it would be unwise to have a singular approach to retail development as a land use.

For this reason, a package of spatial strategies has been developed, that aim to address the relationship between specific contextual circumstances and future retail potential. These strategies should be interpreted more on local level, and are reflected in the Regional Spatial Development Frameworks.

### 2.3.3 RETAIL IN URBAN CORES

It is important to look at the retail development within urban cores relative other parts of the city in context. The retail developments in urban cores are not developed to the same level as in other parts of the city due to the inequitable development policies of the past. Nonetheless, these tables reflect that retail activity does serve as an economic activity within urban

cores, albeit not to the same extent as in the metropolitan nodes which have a long history of favourable development policies.

Within the current context of the city's development policies where equal opportunity is promoted, it is also important to note that retail development, as with many other economic activities, is largely a function of the private sector. The private sector is market-driven, which means that it responds to demand and consumer characteristics. At the same time, the consumer will seek out very specific retail typologies depending on their specific characteristics as a consumer. This supply-demand relationship between developer and consumer will remain a permanent state of affairs. At present, the extent of retail development has largely catered for the consumer group mostly found within urban cores. Previously, due to a lack of private transport and expensive public transport, low-income earners were compelled to source their needs from small localised township retailers. Lower priced goods available at township shopping centres or establishments offered not only the variety of goods available, but also allowed goods and services at more affordable prices. But the population profiles throughout the city are changing as it becomes more integrated spatially, socially and economically. These new population dynamics require that access is given to the upwardly mobile of the former township areas so that spending within the retail arena or urban cores can be directed inward to contribute towards further developing the urban cores. Those that move up the social and income ladder that previously preferred to shop outside townships in upmarket malls (known as 'outshopping') may to a large extent start redirecting their expenditure to township malls if upmarket retail developments are increasingly brought into the urban cores.

The importance of increased, high quality retail development within urban cores is thus two-fold:

- Equitable access to retail opportunities
- Economic stimulation by redirecting spending that might otherwise leave the urban core back towards the core to increase development

While retail development is driven by the private sector, the city has a role towards facilitating the ease with which developers invest in the urban cores. This especially relates to service infrastructure and supporting development

policies. Through the NDPG programme, public initiatives will support private funding within urban core areas.

Township/Catchment Area	Node/Precinct
Mamelodi/Nellmapius	1. Eerste Fabrieke Station Node
	2. Solomon Mahlangu Precinct (Denneboom Station)
	3. T-Section Node
Atteridgeville	4. Saulsville Station Node (includes: Saulsville Station, Atteridgeville Station, CBD and resorts)
Mabopane/Soshanguve	5. Mabopane Station
	6. Soshanguve South x14 (Klipkruisfontein)
Hammanskraal/Temba	7. Hammanskraal/Temba Node
Olievenhoubosch/Monavoni	8. Olievenhoutbosch Node
Refilwe	9. To be determined
Zithobeni	10. To be determined
Ekgangala	11. To be determined (should we determine)
<b>Node being considered for future incorporation</b>	
Mabopane/Soshanguve	Garankuwa Node

## 2.4 MOVEMENT AND CONNECTIVITY

Movement of people and goods throughout the metropolitan area is of city-wide importance. Movement in Tshwane can be described by the following diagram showing major movement patterns in the area.

- Many public transport dependant persons moving into the CBD from the north, the west and the east characterise every morning peak.
- Masses of private vehicles originating in the south and south-eastern parts move from the city in a southerly direction towards Johannesburg.

### 2.4.1 URBAN FORM AND TRANSPORT INTEGRATION

In all successful cities there is a strong linkage and interaction between movement patterns/systems and urban development. It is necessary that land-use planning is done in a way that supports public transport, but it is also necessary to ensure that mass public transport planning promotes and supports urban restructuring and sustainable urban development.

The city historically developed around a strong central core as a mono-centred city. Private investment patterns changed over time with increasing car ownership and a ring of satellite nodes developed. These satellite nodes developed into viable decentralised locations, creating a multi-nodal urban form.

A further implication of the development of the satellite nodes is that the City of Tshwane is becoming increasingly inefficient and hence unsustainable spatially. More residents are becoming ever more dependent on private transport, which is becoming increasingly expensive. The majority of the City's residents have no option other than to rely on inadequate public transport which is also becoming more expensive and unsafe.

#### Spatial problems identified at Metropolitan Scale

Tshwane is a very large and dispersed metropolis featuring numerous problematic characteristics:

- Low density sprawl: Based on an anti-urban ethic of the free-standing house on a plot.
- Fragmentation: the grain of development is coarse, with isolated (introverted) pockets (cells) connected by roads (and freeways), frequently separated by buffers of under-utilised open space.
- Separation of functions: land uses, public facilities (urban elements), races, income groups are all separated by great distances.

#### Settlement form

The combined implications of the spatial patterns on the lives of the majority are disastrous:

- Much time-consuming and expensive commuting is necessitated, which aggravates poverty (and inequity) in society;
- City living has become over-dependant on the private car, which the vast majority cannot afford;
- Increasing numbers of private cars results in traffic congestion and increases pollution;
- The nature of roads results in environments which generate few opportunities to which small-scale economic operators can respond;
- The system is inefficient and wasteful of scarce resources, such as land, energy and finance.

#### Future Spatial Development of Tshwane

In order for Tshwane to accommodate the projected population growth and become sustainable within the Gauteng context, densification will have to take place within specific transport orientated corridors.

The future spatial development of Tshwane will focus on the intensification of urban and metropolitan core areas. The growth of Tshwane should be directed inwards towards the urban cores, mixed used activity spines and specialised activity zones.

#### The nature of Public Transport Corridors and their role as Macro Urban Structuring Elements

The development of a mass public transport system such as the IRPTN/Bus Rapid Transit System, Rail and Light Rail can be seen as a tool to achieve either of the following:

- The efficient movement of people around the metropolitan area; or
- The overall restructuring of urban functionality through the employment of an efficient and appropriate public transport system.



The distinction between the two objectives is important from an urban planning perspective. If the objective is merely to move people around in the city, particularly moving them from home to work and vice versa, then the development of a mass public transport system is purely a transportation issue and is primarily concerned with the provision of roads, infrastructure and vehicles.

However, if such a system is to be utilised to improve not only the movement of people, but also to contribute to the improvement of the overall urban functionality and urban image, then the integration between aspects such as transport planning, land-use planning, urban design and urban management becomes vital.

### **Mobility / Transport Corridors**

Within the Tshwane context mobility has to be ensured on the following three levels:

- To and from other parts of the world and South Africa;
- To and from the Gauteng City Region;
- Movement within the Tshwane Metropolitan Area.

One of the primary reasons for the existence of this type of corridor within Tshwane is to move large numbers of people from one point to another in the city and often over relatively long distances.

This corridor will typically move people from the peripheral areas to work opportunities and back during the day. Because of the long distances separating many people from their work opportunities there is a great need to move people around the city during peak hours in the fastest, most cost effective manner with as little stops as possible between the origins and destinations.



### **Activity Corridors**

The integration between land use, economic activity and movement is the key function of this corridor. People do not only move between the two outer points of the corridor but also between various points along the corridor.

A mature activity corridor displays most of the positive aspects associated with activity corridors, such as high residential densities and high non-residential land use intensities.

Such a corridor will be most appropriate in the more central parts where a number of nodes with a certain degree of intensity and mix of uses already exist in relative close proximity to each other.



## 2.4.2 THE BASIS OF AN EFFICIENT METROPOLITAN MOVEMENT SYSTEM IN TSHWANE

Highways which form the corridors for large scale economic development and connect Tshwane with the rest of Gauteng and the country. These include the N1, R21, the proposed western bypass and Bakwena Platinum Highway.

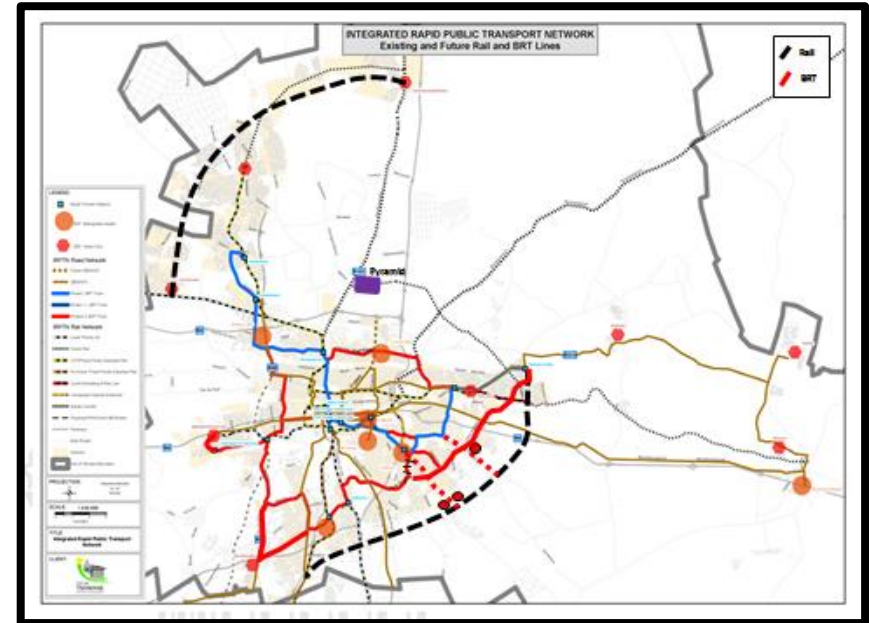
All areas in Tshwane must be well inter-connected by means of a good and efficient public transport system. Two systems are proposed that can serve as the basis of a public transport system, namely rail and the IRPTN/Bus Rapid Transit System.

The existing rail system has great potential of becoming the basis of public transport throughout Tshwane and should therefore form the primary movement system, especially over the longer distances. This system however has current challenges that must be resolved.

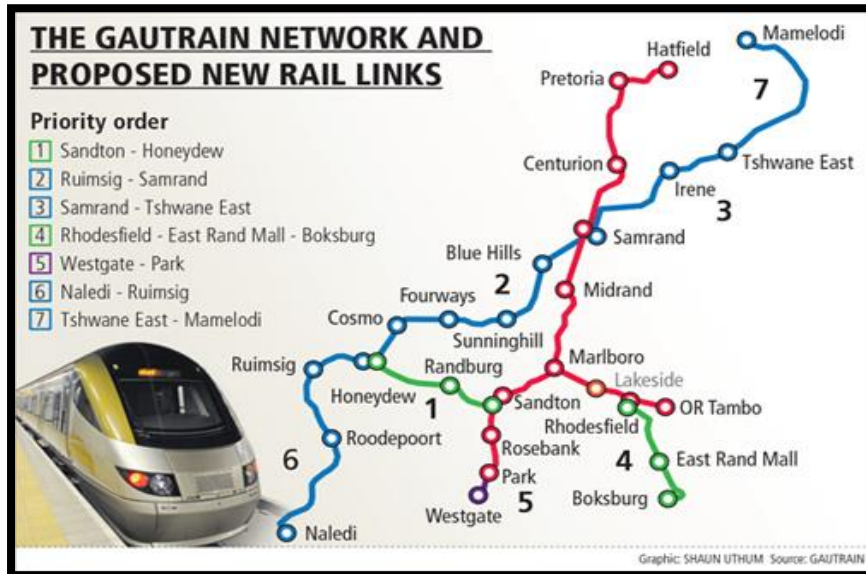
The establishment of an IRPTN/Rapid Bus Transit System is the ideal solution to solve public transport problems over short to medium distances, and will also contribute to connecting metropolitan activity nodes that do not lie on the rail network with each other.

The incomplete concentric road network needs to be developed further to serve the multi-nodal structure of Tshwane.

The Gautrain which links Tshwane to Johannesburg and the OR Tambo International Airport by means of a high speed rail link. The areas around the Gautrain Stations provide the potential for urban renewal in and around station precincts. The proposed extensions of the Gautrain to the east of the city is supported and will improve the general movement within the city.



The Gautrain project is primarily aimed at enhancing and supporting economic growth in the Gauteng Province and generating employment. Gautrain is contributing to the urban restructuring of Gauteng. Gautrain station nodes are important as the more people start to stay around stations, the better services are used, less time and money is spent travelling and a more convenient lifestyle is offered.



Spatially efficient densification policies cannot be implemented without the support of public transport. More residences add more vehicles on roads which are already over capacity. Public transport can be regarded as the tipping point of the success of the city's spatial policies.

Bicycle lanes and pedestrian lanes: Attention must be given to the establishment of separate bicycle lanes and pedestrian walkways to allow for safe movement of cyclists and pedestrians. If these facilities are provided, it will encourage NMT and alleviate traffic problems.

With regard to the movement system, the central concern should be maximising access to regional opportunities. Access has both physical and non-physical dimensions. At a physical level this relates to convenience and at a non-physical level this relates primarily to affordability.

Apart from the physical route, there is also the matter of the means by which one will travel along those routes. Tshwane is experiencing high economic growth, a growing middle-class, and increased vehicle ownership that is causing a surge in traffic volumes and congestion. Public transport has not

been providing an attractive commuting alternative for those who can afford private travel options.

PRASA is currently undertaking studies into the existing and future demand and capacity of rail-based transport. All planning in this regard will also be informed by financial feasibility. There is an opportunity to create efficiency and close public transport gaps by integrating the BRT network with the Rail network. The BRT offers opportunities for both long and short distance travel. This means that where long-distance rail is not feasible, BRT can be implemented or *vice versa*, specifically in the case of long distance travel.



The integration should be carefully planned in order to ensure sustainability by avoiding competition between the two transport options. Preliminary indications are that there is not enough capacity to support both the Rail and BRT system along the same routes. Further, it is expected that the first phase of the BRT will link the Akasia and Menlyn area to the CBD. The BRT will provide both long and short distance travel options. This scenario negates the necessity for rail along the same route.

The Bus Rapid Transit and Rail should be the backbone of the future Tshwane transport system. The intention is that they become the preferred

mode of travel for the majority of residents. In time, the improved public transport system should slowly start overtaking private vehicle usage specifically in nodal areas. This intervention will encourage transport-orientated developments.



Key characteristics of transit-oriented development include:

- a rapid and frequent transit service
- high accessibility to the transit station
- a mix of residential, retail, commercial and community uses
- high-quality public spaces and streets which are pedestrian and cyclist friendly
- medium to high density development within 800 metres of a transit station
- reduced rates of private car parking.

This means that developments that cater for, or provide public transport solutions or align themselves along public transport routes will be prioritised. The decrease of private vehicle usage will also promote pedestrianisation of urban areas and an overall decreased carbon footprint. On the reverse side, in order for efficient transport systems to be sustained, a critical mass of users must be achieved. This means that localities that would induce the convergence of large numbers of people would be required. This again, brings us back to the nodal concept of the widest possible range of services within an area and highest residential densities being supported. The higher the rate of usage of the public transport system, the more affordable it will be. At the same time, the convergence of a large number of private vehicles in a locality causes traffic congestion and an avoidance of such an area by those who have alternatives. Removal of private vehicles can effectively improve the quality of an environment.

The City's road, rail and air movement systems will need to be developed to optimise all related opportunities. The rail system should become the backbone of public transport throughout Tshwane and it is therefore an important structuring element of the city. The positions of the urban cores purposefully coincide with major railway stations. The Gautrain stations in Tshwane include Hatfield, Centurion and the Inner City, again creating opportunities for intensification and development. Further expansion to the east will also allow for additional densification opportunities.

The proposed metropolitan vehicular movement system should be designed to support the rail system, i.e. to enable convenient transport of people to and from the railway stations. The rail network which is well developed with only a few missing linkages is not utilized in terms of its potential as a mass transport facility. With the majority of the population dependant on public transport the strategic rethinking of this mode of transport is necessary.





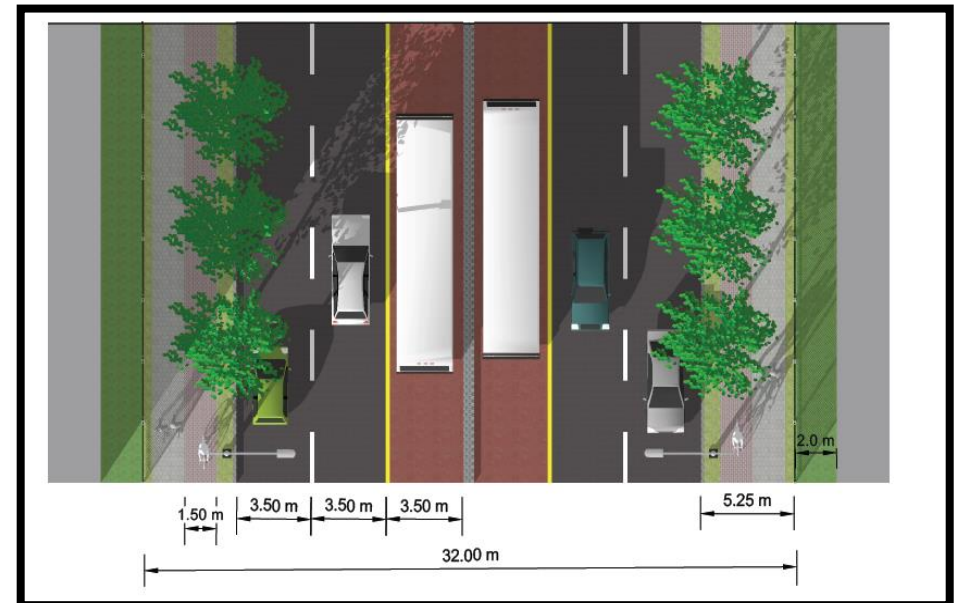
### Livable Streets Concept

Liveable streets are defined as streets for everyone that are planned, designed and operated to enable a network of safe access for all users, including pedestrians, cyclists and transit riders.

The liveable street concept requires streets to be designed to enable safe, convenient and comfortable travel and access for all users, regardless of their mode of transportation. Complete streets accommodate walking and cycling. Streets are currently designed to only cater for cars; pedestrians are accommodated in the leftover space along narrow sidewalks. No provision is made for other modes of transport and the socialising function of streets is ignored. This is specifically problematic in the inner city where there are large numbers of pedestrians and where the limited space available requires streets to be part of the open-space system. In terms of the complete streets concept vehicle and public transportation users are separated. It also makes provision for the socialising needs of residents and inner city users.

The design principles of complete streets are –

- traffic-calming measures to lower the speeds of vehicles;
- a road diet to reduce the number of lanes for vehicles and on-street parking;
- landscaping and streetscaping elements such as trees and benches to create a conducive pedestrian environment and protect pedestrians from vehicles;
- wide sidewalks to accommodate comfortable pedestrian movement;
- widening of sidewalks in some places to allow for socialising spaces;
- accommodation of cyclists, such as protected or dedicated bicycle lanes; and
- accommodation of public transport such as the bus rapid transit.



.Source: City of Tshwane, City Planning and Development Department

## 2.5 ENVIRONMENTAL STRUCTURING CONCEPT

### 2.5.1 HERITAGE AND CULTURAL SITES

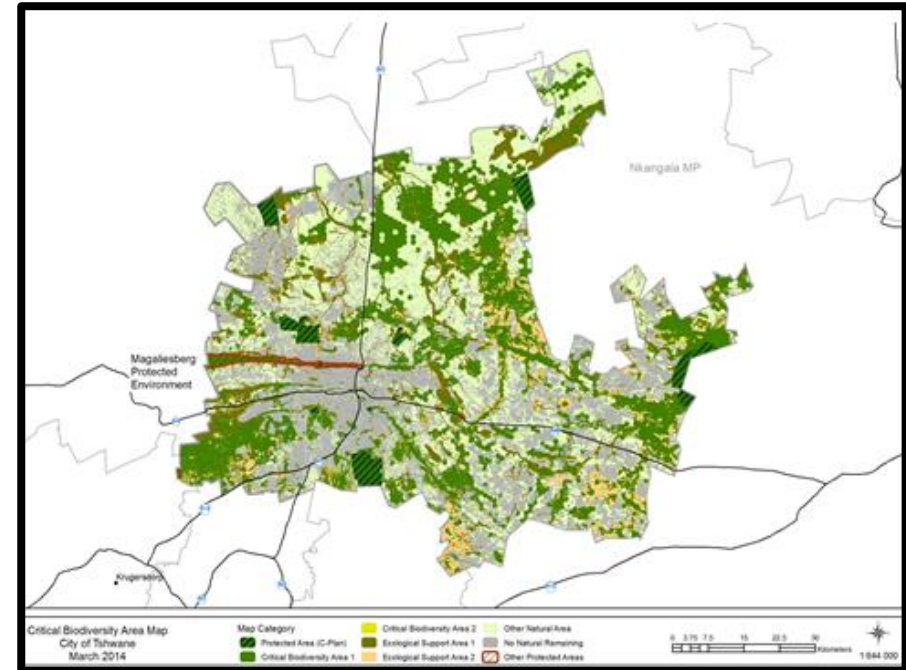
Tshwane's urban form and identity is closely linked to the influence of its natural and cultural elements. The developed areas are intimately intertwined with open spaces, creating a city with a unique character. The spatial development of the city should continue to value the role and prominence of the natural environment that sustains and informs the city. The natural structuring elements of Tshwane are those physical features that have to a great extent influenced the historical growth and settlement development pattern and that have an important ecological role to play in the ecological integrity of the metropolitan area.

### 2.5.2 OPEN SPACE AND CONSERVATION AREAS

A well-defined open space network is an important and integral part of the Spatial Development Concept of the MSDF.

The Tshwane Open Space Framework was approved in November 2005. The Framework will need to be reviewed and updated to include the newly incorporated areas of Tshwane.

The development of an open space network is an integral part of shaping the city. Ecological resources are irreplaceable and should thus be one of the major structuring elements guiding the development of the city instead of unplanned urban growth taking precedence and open space becoming merely land that is not desirable for urban development and thus 'left over' space. An important step in shaping urban form is thus the determination of an open space network, which contains natural processes and systems. The open space network is concerned with the spatial structure of green areas in the urban landscape and with all planning activities that are essential to create conditions for green areas to perform ecological services and to contribute to the quality of urban life. It is thus used to indicate the position of green areas in the urban landscape. As such it has spatial, social and technical dimensions. An open space network is also a planning concept, indicating the intention to develop planning and management tools for the structural role of green areas in the urban fabric and the urban organization.



An open space network contains not only the elements that constitute the open space in itself (vegetation, water, animals, natural materials etc.), but above all how the various open spaces are shaped in relation to the concepts of distribution and organization, to form a system of open spaces. An open space network incorporates a wide variety of open spaces into one system. Open spaces cease to be discreet elements within the city but together form a network in which each component contributes to the whole.

Open Spaces inter alia include the following:

**Conservation Areas:** Areas designated for nature conservation, which may include tourism related facilities and recreational facilities directly related to the main use.



**Recreational and tourism related facilities:** Outdoor and tourism related activities, including hiking trails, hotels, 4x4 trails, wedding venues, conference facilities, curio markets, farm stalls, restaurants, game lodges and resorts with a rural character with due consideration to its impact on the surrounding area and environment. The COT has tremendous opportunities in the eco-tourism arena. Most of the eco-tourism activities occur along the Roodeplaat Dam, which is situated to the north of Cullinan (Zambezi) Road on the farms of Zeekoegat, Leeuwfontein and Roodeplaat. Both Roodeplaat Dam and Bronkhorstspruit Dam are under immense pressure from high income residential enclaves. Increased development pressure could cause serious degradation of the natural areas as limited environmental management guidelines exist. There is also the Dinokeng Blue IQ project. Eco-tourism activities that can be enjoyed include but are not limited to the following: game farms, nurseries and bird watching to mention but a few.

It must be stressed that an open space network does not focus only on 'green' spaces, but also on more urban or 'brown' spaces as well as spaces that contribute to the place-making of the city.

From a city-planning perspective open spaces have various important functions:

**City structuring:** Historically Tshwane's numerous mountain ranges and ridges, rivers and water courses, and nature reserves and conservation areas have had a lasting impact on the city form and development pattern. Today this impact is still felt, as the Magaliesberg with only a few crossings still forms a barrier between the more prosperous southern suburbs of Tshwane and the less well developed northern suburbs. The scenically beautiful conservancy areas in the south-western part of the city form natural buffers for urban expansion in that direction.

On the other hand these structuring elements do present an opportunity to connect and integrate the various parts of the city, e.g. the Apies River which crosses almost the entire municipal area from south to north.

**City image and identity:** The mountain ranges and ridges, and large conservancy and protected areas in particular, and rivers and water courses to a lesser degree, are responsible for Tshwane's unique African

character and identity, which is being best described as 'nature within a city' and 'a city within nature'. There is the positive contrast between the built-up and natural environments everywhere, but nowhere more expressive than at the southern approach to the inner city. This uniqueness must be protected, enhanced and celebrated at all costs in the future.

**Urban expansion:** The large open spaces (ridges, conservancies, protected areas, etc.) contain urban expansion and prevent the city from developing into a monotonous build-up urban 'desert'. Because of the limitations on land availability this will eventually lead to a more compact city with higher densities, guarantying a more sustainable and efficient urban structure for the future.

**Land Uses:** Land-use planning must be done in relation to the open space network where possible, which creates the opportunity to place various urban land uses or developments inside or adjacent to the network. The full potential of the open space network can therefore be exploited for unique projects which otherwise would not be feasible.

Such developments include ecological estates, where the primary focus is the conservation of the natural resource/open space. Conservation in this sense must not be seen as only protecting special or sensitive environments, but conserving open space as a valuable resource itself. The residential development is seen as a mechanism to protect and enhance the open space character and not as an end in itself. Special conditions shall apply in the consideration and approval of such developments, including the following:

- Dwelling-units shall be grouped together in as few clusters as possible;
- A strategic Environmental Assessment shall be done to determine the open space, the position of the clusters and the position of ancillary uses such as roads;
- Conditions shall be set for the design, character and overall relationship of the estate with its environment;
- Conservation conditions shall be strictly adhered to.

### 2.5.3 RURAL MANAGEMENT

#### Introduction

The erstwhile City of Tshwane (previous dispensation) was mostly characterize as an urbanized Metropolitan area with only a smaller sector known and characterized as definite Rural Areas. It is also important to note that parts of these apparently Rural Areas were further earmarked as Future Urban Development. These Future Urban Development Areas were designated in terms of each Regional Spatial Framework for future urban expansion and development.

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order e.i. to protect the Environmental sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land use development in the less sensitive areas.

#### Background

The following source documents were used as building block for the compilation of the revised Rural Component, Rural Management and Rural Development:

- Tshwane Biodiversity Plan. (2016))  
  
All information with regard to the existing Urban Edge, Ridges, Ecological support areas, important areas, Irreplaceable areas, Protected areas, Game Reserves and Nature Reserves were used
- The existing and future provision of essential services  
  
Information with regard to the provision and capacity of Water (Reservoirs), Sanitation (Waste water plant), Roads, Storm water, Electricity, watersheds and flood lines were used to determine the development edge

- The Metsweding Environmental Management Plan
- The Gauteng Spatial Development Framework 2011.
- The National Planning Commission: National Development Plan 2011: Chapter 6: An Integration and Inclusive Rural Economy.

It must be noted that all these documents were used to inform the revised Rural Component and did not dictate the final product.

#### Demarcation of the Rural Component

In terms of the Gauteng Spatial Development Framework, 2011 the function of determining the Urban Edge has moved to the Local Authorities and is a function is not part of the Provincial Planning functions.

There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

These areas will remain as Future Urban Development as it shall retain a rural character until such time that basic service can be provided. These areas still need to be managed as rural areas with specific guidelines contained in the different RSDF's.

As soon as the areas earmarked as Future Urban Development been serviced, these newly serviced areas will be excluded from the Rural Component and will form part of the urban fabric of the city.

#### Vision

The Tshwane Rural Component will promote:

- An effective response to rural poverty.
- Ensure food security by maximizing the use and management of natural and other resources.
- Create vibrant, equitable and sustainable rural communities.

- To contribute towards the redistribution and sustainable use of all potential agricultural land.
- Rural economies will be supported by agriculture, and where possible by mining, tourism and agro processing.
- Create employment and business opportunities for the existing rural population;
- Aims to prevent natural disasters like erosion, pollution and other detrimental effects on natural resources;
- Promote accessibility to community facilities, work opportunities and housing for all;
- Provide public transport services for the more densely populated rural areas;
- Address adequate and respectable services to improve living conditions; and

### Guidelines

In the new Tshwane Metropolitan Rural component, the following conditions exist that need to be taken into consideration. Each Region has its own specific rural character and rural composition and detailed proposals for the Rural component are therefore dealt with in each Regional context.

Various Rural land-use / Rural activity zones are located within the Rural areas and are indicated on the different Rural Component maps for the various Regions. Together with the maps there are tables contained in each of the Regional Spatial Frameworks with restrictive or promotional conditions for every Rural land use / Rural activity zone located in that Region.

The Rural land uses/Rural activity zones for Tshwane Metropolitan area are:

- Development Edge
- Major Rural Roads
- Existing Infrastructure for essential services
- Future Urban areas
- Management zones
- Agricultural areas and

- Agricultural High Potential areas
- Sensitive protected areas. (Combination of C-Plan protected areas), including (Ridges and Streams, Natural resources, Fauna and Flora protected places / areas)
- Heritage and Cultural protected areas
- Tourism potential places / areas
- Human settlements
- Conservancies
- Game and Nature Reserves
- Mines / Places of manufacturing
- Community Service Centres

### Conclusion

The main principle is to increase accessibility of rural people to basic services in support of survival strategies in the first instance and, in the second, to establish a base from which to start engaging more in productive activities. Given limited resources, the rural component should provide for basics for survival to all existing settlements but no provision for additional settlement growth. Localities with some economic potential should receive higher levels and a wider range of services/facilities.

The Smart growth principle will further more be strengthened through a well-managed Rural Component and will assist in:

- Discouragement of urban sprawl and contain growth with the city limits
- Compaction of the city through infill and densification
- Improvement of the utilisation of existing infrastructure, services and facilities
- Preservation of the rural environment and landscape
- Protection of agricultural land, especially high potential agricultural land
- Preservation of the environments that promote tourism, recreation and nature conservation
- Assisting the urban regeneration by adopting an inward approach
- Protecting cultural and tourism assets.

## PART THREE: REGIONAL ANALYSIS

### 3.1 LOCALITY

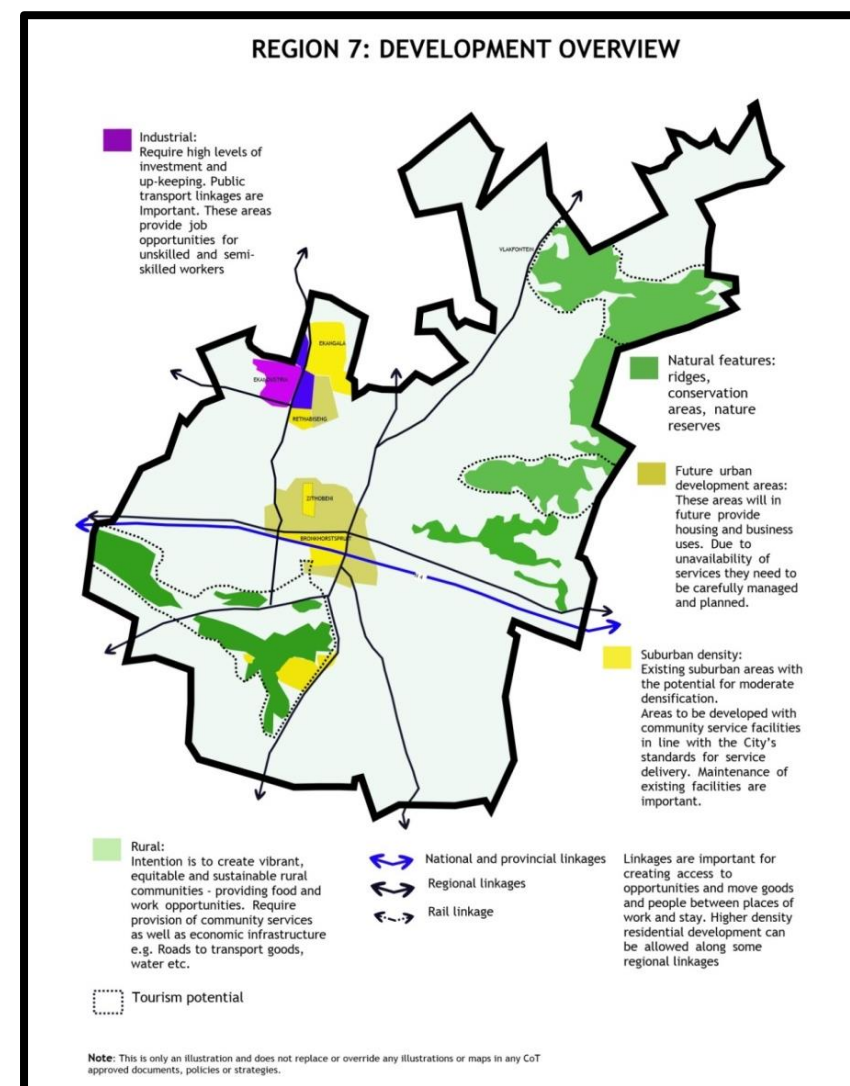
Region 7 is the Eastern most area of the new City of Tshwane and is south east of Region 5 and north east of region 6. Further Region 7 is bordered by Mpumalanga to the east and North and Ekurhuleni Metropolitan Municipality to the South.

Region 7 is characterised by the following geographic features:

- Significant ridge systems such as the Bronberg Ridge, Gouwsberg mountains along the Wilge River;
- Significant watercourse systems throughout, most notably the Bronkhorstspuit, Wilge River, Osspruit, Blesbok spruit, Vals and Grootfontein spruit.
- Significant watercourse systems throughout the area, most notably the Premier Mine Dam and the Bronkhorstspuit dam;
- Protected Areas in the form of the Bronkhorstspuit nature reserve and Zemvelo Nature Reserve;
- Ecologically sensitive areas associated with ridge and watercourse systems.

It is accessible via:

- The N4 forms a dominant central mobility spine within the region;
- The region is accessible from a regional point of view as it is served by both north-south and east-west first order roads linking it to the rest of Gauteng and the broader region.



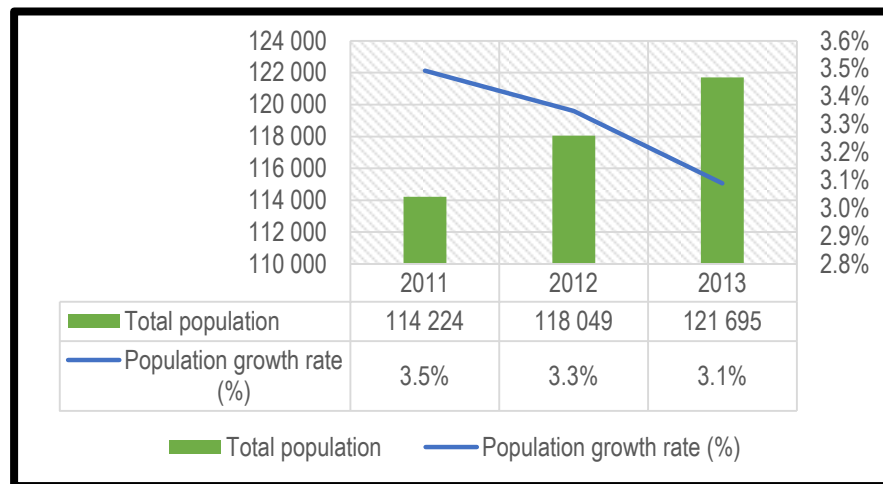
### 3.2 AREA

The region is 1 473km<sup>2</sup> in extent and comprises wards 102, 103, 104 and 105. This is the region with the second largest geographical area.

### 3.3 DEMOGRAPHIC INFO

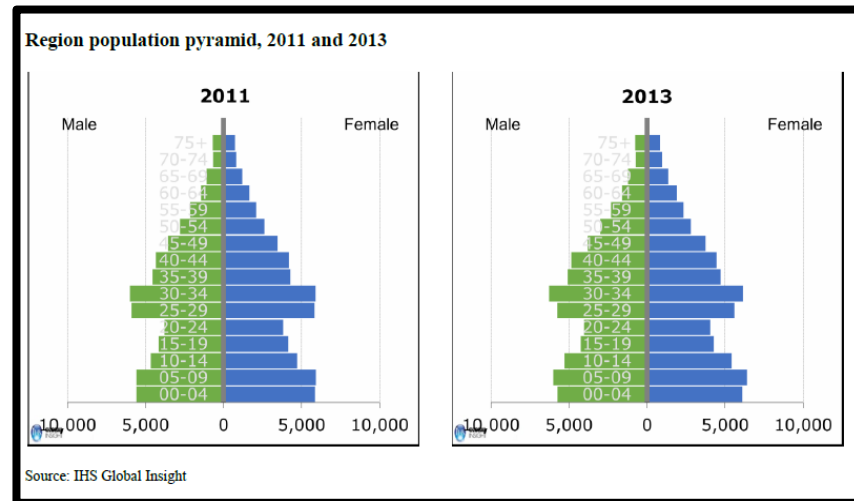
Region 7 had a population of about 114 224 people according to the 2011 Census. It is projected that in 2017 Region 7 will have 136 969 people residing in the region.

#### Total population and growth rate, 2011-2013



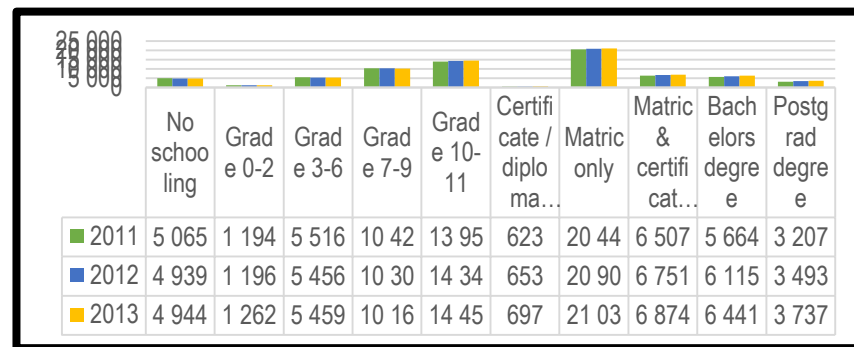
Source: IHS Global Insight

The above graph indicates the total population and in Region 7 and the associated percentage growth rate since 2011 to 2013. As indicated in the figure, population in Region 7 has been steadily increasing in nominal terms, however, the percentage growth has been subjected to a decline. In 2011, the total population was approximately 114 224 and grew to 121 695 in 2013. The population growth is however growing at a declining rate, in 2011, the year-on-year population growth rate was at 3.5 percent and has since declined to 3.1 percent in 2013.



The above graph indicates the 2011 and 2013 population pyramid for Region 7, from the figure, it can be noted that there is a youth bulge in Region 7's population i.e. it can be observed that a significant portion of Region 7's population is younger than 35 (61.8 percent).

#### Highest level of education attained for Region 7 population aged 20 years +, 2011 -2013



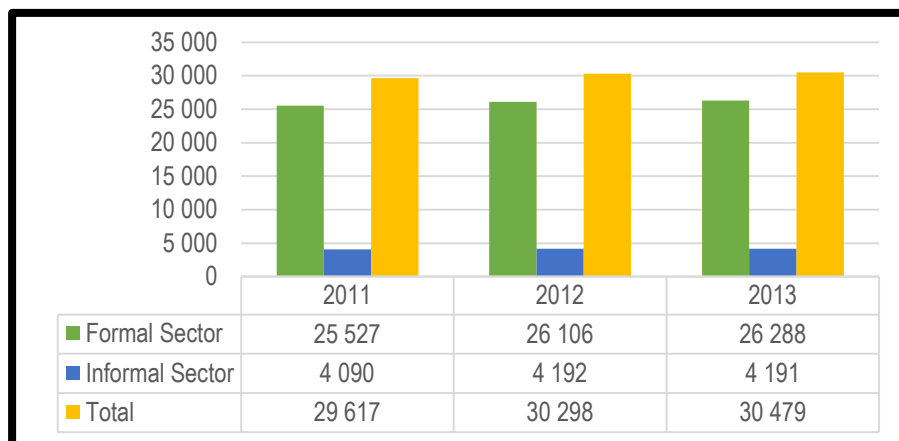
Source: IHS Global Insight

The above figure indicates the highest levels of schooling for the population aged 20 years and older in Region 7. As indicated in the



figure, Tshwane has over the years under review i.e. 2011 – 2013, increasingly performed well with respect to education, more so in the accumulation of both matric and post matric qualifications. In 2011, approximately 35 821 individuals aged 20 years or older, had at least a matric qualification, this has since increased to 38 083 individuals in 2013. The number of individuals aged 20 years or older with no schooling on the other hand have since declined from 5 065 in 2011 to 4 944 in 2013, i.e. a 2.4 percent improvement.

#### Employment in Region 7 by sector (formal and informal), 2011 -2013



Source: IHS Global Insight

The graph above indicates the total employment in Region 7 disaggregated by sector (formal or informal). As indicated in the figure, total employment (absolute terms) in Region 7 has been steadily increasing over the 2011-2013 period. In 2011, total number of individuals employed in the region were approximately 29 617, these have increased to 30 479 in 2013. As one would expect, the largest composition of this growth is in formal sector employment, which was 25 527 in 2011 and has since increased to 26 288 in 2013. Informal sector employment has increased from 4 090 in 2011 to 4 191 in 2013.

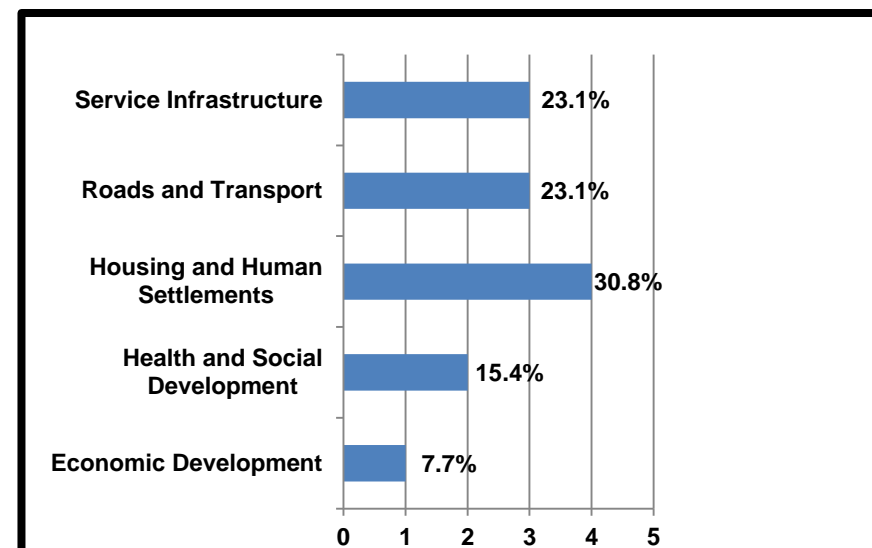
#### 3.4 WARD PRIORITIES FOR 2015/16

During the public participation process in preparation for the 2015/16 IDP review; the three top priorities per ward in terms of community needs /

service delivery were reconfirmed and compiled. In summary, the following were the key dominant service delivery areas which were raised in Region 7 during the 2015 review process:

Dominant Service Delivery Areas per Region	
Service Delivery Department	Community Issue / Concern
Roads and Transport	Tarring of roads Road and stormwater maintenance
Housing and Human Settlements	Provision of land and housing Formalisation of informal settlements
Service Infrastructure	Provision and maintenance of bulk water and sanitation, electricity infrastructure

The service delivery issues which were raised are therefore clustered into relevant City's departments as per the graph below:



### 3.5 REGIONAL CHARACTERISTICS

The main characteristics of the Region 7 are discussed below:

The region includes the areas of Bronkhorstspuit, Ekangala, Ekandustria, low income residential areas and surrounding rural areas. The urban area of Bronkhorstspuit is more developed, with modern infrastructure, such as water, electricity, roads, communication networks and sanitation.

The area contains some of the best farming land in Gauteng.

The most significant contributors to the Region economy are manufacturing (29%), services (28%), financial (17%) and trade (12%).

Most manufacturing and distribution related companies are located in the industrial areas in close proximity to Bronkhorstspuit.

### 3.6 STRUCTURING ELEMENTS

The area has a rather weak spatial structure characterised by heavy through traffic, vast open spaces, and small economic centres.

Factors affecting the spatial development include:

- The disparate location of urban settlements makes the consolidated development of the settlements difficult.
- Environmentally sensitive areas that should not be developed.
- Lack of infrastructural services in rural areas and to poorer communities.
- Regional accessibility through the N4 as well as secondary corridor R25 provincial road.
- The N4, R25 and railway line are the strongest structural elements in the area. The N4 also forms the backbone of the Maputo corridor, linking through to Maputo. The main east west corridor is the N4. Public transport in rural areas in particular, non-motorised transport (bicycles and walking) play a special role when short distances are travelled and also most popular forms of mobility used by communities. A fair number of mini-buses and buses carry a fair number of passengers to and from the area and therefore mini-

buses and buses are probably the most appropriate modes to provide transport services in the area. 1101

- The municipal area has vast open spaces that are cultivated in the eastern part, with small economic centres Bronkhorstspuit and Ekandustria (with surrounding lower income residential areas), in the middle and to the north west of the area. Informal settlements, though small and relatively contained, are scattered through the area, forming low-income residential enclaves.
- The Sokhulumu rural community is located in the north east of the region. The area is under provided with both service and social infrastructure.
- Apart from the pristine natural environment, the Bronkhorstspuit Dam is a major asset. The dam is, however, under immense pressure for the development of high-income residential enclaves.

Other places of interest in the region include:

- Nature reserves
- Conference and accommodation facilities
- Sizanani Cultural Village
- Nan Hua Buddhist Temple

### 3.7. ECONOMIC BASE

#### Agriculture

The area has good fertile agricultural soils. More than 80% of land is agriculture in nature.

Agriculture currently makes a low contribution (3%) to the local economy but has significant potential for growth.

#### Manufacturing and Distribution

The Manufacturing sector of Region 7 Municipality contributes 29.1% to the municipal GDP. This is the result of the strong local Manufacturing sector, indicating the relative importance of this sector.

Most manufacturing and distribution related companies are located in the industrial areas in close proximity to Bronkhorstspuit – Bronkhorstspuit Light Industrial, Ovipropark, to the north-west of Bronkhorstspuit Town and Ekandustria.

## **Tourism**

The tourism sector is regarded as small but developing. There are resources and infrastructure available which contributes to the development potential in this sector. Community tourism is becoming increasingly popular, with tourists wanting to experience South Africa in the many rural villages and townships across the country.

Opportunities for the future development of tourism could possibly be found such as bush camps and the future trend of cultural group tours with an educational basis.

Development potential within the tourism industry include the increase in arts and craft SMMEs, new tourist routes, attraction development, education and training of tour operators, establishment of travel agents and tour operator training.

## **3.8 PHYSICAL ENVIRONMENT**

### **3.8.1 NATURAL STRUCTURING ELEMENTS**

The environmental features of Region 7 are major form giving elements that determine the surrounding urban structure.

Region 7 is characterised by the following:

- Significant ridge systems such as the Bronberg Ridge, Gouwsberg mountains along the Wilge River;
- Significant watercourse systems throughout, most notably the Bronkhorstspuit, Wilge River, Osspruit, Blesbok spruit, Vals and Grootfontein spruit.
- Significant watercourse systems throughout the area, most notably the Primer mine Dam and the Bronkhorstspuit dam;

- Very little maintenance action on watercourses;
- Protected Areas in the form of the Bronkhorstspuit nature reserve and Zemvelo Nature Reserve;
- Ecologically sensitive areas associated with ridge and watercourse systems;

### **3.8.2 STRATEGIC LAND USES**

The region includes a few prominent land uses of strategic significance to the local as well as the broader urban environment of Tshwane. These include:

- Bronkhorstspuit town area
- Ekandustria industrial area
- Bronkhorstspuit dam
- High potential Agricultural in the Region

### **3.8.3 NODES**

The region accommodates one important business nodes, namely: Bronkhorstspuit Town which includes, Light industrial Retail and Residential and Zithobeni Node.

### **3.8.4 LINEAR ACTIVITY AREAS**

Sections along the following routes can be regarded as activity streets.

- N4 Corridor
- Mulder Street
- Stanza Bopape Street
- R25
- R101
- R513

### **3.8.5 MOVEMENT AND TRANSPORT SYSTEM**

Issues relating:

- Create accessible intermodal transport hubs as priority
- Corridor development along main routes needs to be enforced
- Taxi ranks, ablution and other facilities for commuters are inadequate
- Access to transportation from informal settlements required.

### 3.8.6 SERVICE INFRASTRUCTURE

Services are concentrated in the established townships in the urban areas. The majority of people in the area do not receive piped water, sanitation and electrical services.

#### Water and Sanitation

Issues relating to water and sanitation:

- The range and variety of water supply arrangements in the area need to be consolidated.
- Current sanitation systems around Bronkhorstspuit Dam are inadequate and could lead to pollution.
- Informal areas are either not serviced or poorly serviced
- There are no outfall sewers in many parts of the area

The area mainly obtains its water from the Bronkhorstspuit dam. The bulk of treated water is produced at the Bronkhorstspuit Water Treatment Works and distributed to the Bronkhorstspuit/Zithobeni reservoirs. For the Region area, an average of 78% of households has access to water.

Sanitation is one of the most important basic services that are needed within the municipal area. According to the 2009 COGTA Basic Services Report the average backlog as a percentage is 35% for Region 7.

#### Electricity

Issues relating to electricity are as follows:

- There is a lack of electrical supply in remote rural areas
- Alternative sources of energy e.g. solar power are not utilised to ease the electrical pressures

Substations need to be upgraded with capacity to address the current as well as the future demands. Free Basic Electricity is also one of the national government's initiatives to provide basic services to indigent households in the municipalities. In the area there are Eskom and Municipality supplied areas. The number of indigent households receiving free basic electricity is 22 292 in Region 7.

### 3.9 KEY ISSUES AND S.W.O.T ANALYSIS

In order to determine the key issues and development opportunities for the area a S.W.O.T. analysis for the region was done.

#### 3.9.1 STRENGTHS

The region is served by both north-south and east-west first order roads linking it to the rest of Gauteng and the broader region:

- The N4 / Maputo Corridor forms a dominant central east-west mobility spine, linking the region with the capital core further west along the N4 and other key areas further east along the N4 such as Witbank, Mbombela / Nelspruit, the Kruger National Park and the expanding ocean port at Maputo;
- The R25 runs north-south of the region, linking it with Ekurhuleni Metropolitan Municipality.

The region has large parcels of vacant land and high potential agricultural land providing an opportunity for future expansion.

- Large rural areas, along with the attractive natural environment-the Bronkhorstspuit Nature Reserve and Zemvelo Nature Reserve-, as well as the Sizanani Cultural Village and the Nan Hua Buddhist Temple allow for the establishment of tourism related activities.

### 3.9.2 WEAKNESSES

- The region is spatially fragmented, with both the formerly disadvantaged townships of Ekangala and Rethabiseng, along with the high income Kungwini Country Estate and Bronkhorstbaai located approximately 20km north and south of the Bronkhorstspuit town respectively;
- In addition, the Sokhulumi Rural Community and Vlakfontein-A are remotely located, approximately 35km northeast of the Bronkhorstspuit town and it is difficult to provide both social and municipal services to those rural communities.
- Backlog in the provision of bulk services to the former disadvantaged townships of Ekangala;
- Limited job opportunities for the unskilled

### 3.9.3 OPPORTUNITIES

The high potential agricultural land and good regional connectivity places Region 7 in a good strategic position to become a major supplier of agricultural produce, both for beneficiation within the area and for the region. This strategic position is in line with the Gauteng Provincial Growth and Development Strategy that identifies the study area for intensive agricultural development and beneficiation.

The area offers the competitive advantage of proximity and access to both major urban nodes in Gauteng – CoJ and CoT, as well as to Oliver Tambo International Airport. It also offers access to critical points further east along the N4 / Maputo Corridor, such as Witbank, Mbombela / Nelspruit, the Kruger National Park and the expanding ocean port at Maputo. Costs associated with this access are much lower than in competitive locations, such as in Midrand or other more centrally-located areas.

The presence of Ekangala / Ekandustria in Region 7 has the potential to create large amount of job opportunities although aging infrastructure needs to be replaced. Distribution cost is also an important factor in agricultural production, which relies on access to markets. Arable land is within a relatively short distance to the urban markets and export opportunities from both JIA and Maputo.

There are opportunities to enhance linkages with other jurisdictions as part of a broader marketing & investment strategy that will be developed. Initial concepts might include linkages developed especially with Maputo / Mozambique, Witbank, Ekurhuleni and export companies in Gauteng. The key is to strengthen and enhance linkages throughout the Maputo Corridor and between Region 7 and key producers/import-export nodes

### 3.9.4 THREATS

The area has relatively low skilled labour available in comparison with the urban areas in Gauteng and in this regard the procurement policy on district level should make provision for capacity building and/or skills training, should external companies be appointed due to no or limited skills from within the district.

The area is also excluded from the spatial growth focus of the provincial economy and as a result of provincial planning that restricts urban sprawl. This implies reduced opportunities for new infrastructure development in the rural areas that may also limit the potential income of the district. Few areas have access to bulk infrastructure necessary to support industrial and tourism development. Access to municipal services is relatively high in the urban areas but should be extended to the rural areas to unlock potential where sensible development in line with the requirements of residents can be undertaken.

The water capacity in the area is under severe strain. The region's water is supplied by Rand Water who abstract their bulk water supplies from the Vaal Dam. As it stands, the abstraction already exceeds the licenced water use quota of 1600million m<sup>3</sup>/annum, and at the moment there are no indications that this water quota might be considered to be increased until 2025 when the Lesotho Highlands Phase 2 is expected to be commissioned. As a result, this poses a threat to the growth and development of the area. In addition, there is an awareness of increasing water demands and the inadequacy of water infrastructure. There are planned infrastructure augmentation projects which comprise of storage reservoirs and system booster pump stations. The successful completion of the construction of these will assist in restoring the water crisis in the region



Unemployment is becoming an increasing concern as job opportunities for unskilled and semiskilled people in particular are diminishing, owing especially to the decline in the mining and manufacturing sectors and to the decline in the South African economy as it tries to remain internationally competitive. To this end reference is also made to the relatively large component of the population within the area with limited levels of education.

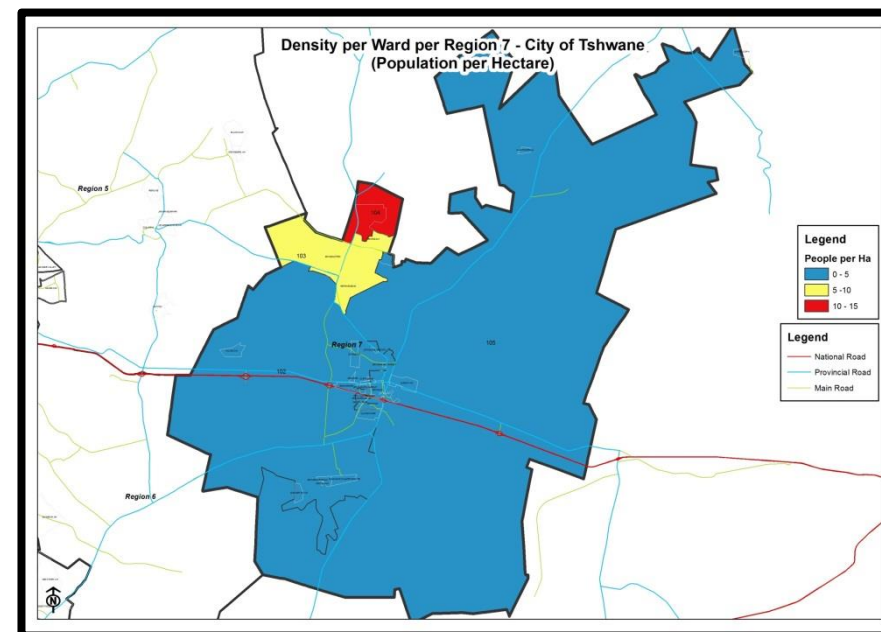
### 3.9.5 ROLE AND FUNCTION

The metropolitan role and function of the region is to:

- Agriculture: To develop this sector to be a producer of agricultural products and provide employment opportunities.
- Ensure conservation of open space systems and ecologically sensitive areas.
- Develop the tourism sector in this area to generate income and provide recreation facilities to the rest of the CoT and surrounding areas.

### 3.10 RESIDENTIAL DENSITIES IN REGION 7

Ward	Population	Area in Ha	Density per Ha	Dwelling Units	Average Household Size
87	24861	6591	3.77	7522	3.31
99	33414	113953	0.29	10761	3.11
100	32623	34912	0.93	8995	3.63
<b>Total</b>	<b>90898</b>	<b>155455</b>	<b>0.58</b>	<b>27278</b>	<b>3.33</b>



### 3.11 TRENDS IN REGION 7

There has been a limited amount of development in Region 7 and with only a limited number of residential flats that were built in Bronkhorstspuit between 2012 and 2015. The market was driven by the housing need created by the development of the Kusile power station.

Large developments did however take place in the rural areas with the focus on the agricultural sector.

### TRENDS IN NODES

There are a limited number of developments that took place in the Bronkhorstspuit node and the focus was on medium density residential development. Several medium density residential developments were completed and some are still being developed in the Bronkhorstspuit CBD and they make provision for 1 and 2 bedroom units.

## TRENDS ALONG RURAL AREAS

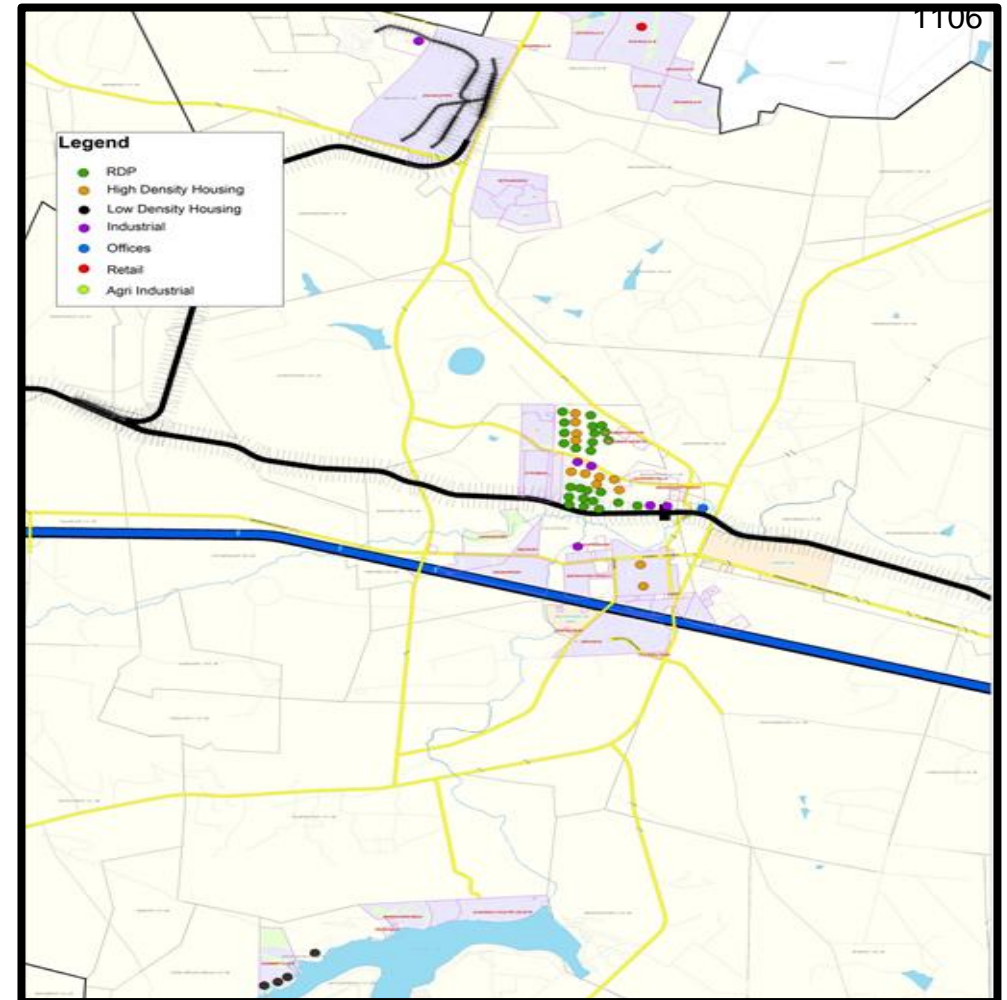
The rural areas of Region 7 were active with a 250 000-ton soya bean crushing facility being built during 2013. The new soya processing plant will help South Africa become less dependent on imported protein for animal feed. In 2016 the Tshwane Food and Energy Centre a greenfield project was launched next to the Rethabiseng and Ekandustria Townships. The Agropolitan Village will contribute to the City's food security through livestock production and energy security through the establishment of a photo-voltaic solar power plant and reuse of livestock organic waste as feedstock for renewable energy production (biogas).

## TRENDS IN PREVIOUSLY DISADVANTAGED AREAS

The Zithobeni, Rethabiseng and Ekangala townships did not see major developments taking place between 2012 and 2015. The Remainder of the Farm Ekangala 610 JR has been earmarked for the formalisation of informal settlements/ Townships such as Zithobeni Extensions 8 and 9, Zithobeni Heights and Riama Park Extension 6 are earmarked for the development of housing units.

## TRENDS IN SUBURBAN AREAS

The suburban areas in Bronkhorstspuit did not see major changes except for limited densification near the Bronkhorstspuit CBD.



## PART FOUR: REGIONAL SPATIAL DEVELOPMENT FRAMEWORK

### 4.1 INTRODUCTION

The main development objectives for the region to fulfil its metropolitan role and function have been identified and are represented in a development concept. The main elements of the development concept are to improve linkages; the creation of job opportunities; residential development and agricultural development. The following summarises the proposals:

- Access to the second order road system from the N4.
- Improved east-west linkage to CBD.
- Improve linkage to the N4.
- Development of new nodes and the expansion of existing nodes.
- Densification around the nodes.
- Conservation and development of agricultural potential in the area in far east and south.

The following section will explain in detail the different components of the Spatial Development Framework as indicated on the map.

### 4.2 REGIONAL NODES / LOCAL NODES



#### 4.2.1 BRONKHORSTSPRUIT:

Bronkhorstspuit is located approximately 50 km east of the urban area of the City of Tshwane, adjacent to the N4 highway. Bronkhorstspuit is also the entry point to Gauteng and the City of Tshwane area from Mpumalanga, located north and south of the N4 highway. The main

access routes to Bronkhorstspuit is the N4, Stanza Bopape Street (R104) (east-west), R25 and R513 (north-south).

Bronkhorstspuit is according to the MSDF/RSDF one of the identified metropolitan nodes. The town has a small inner core area with mixed used/mainly business related as well as residential, community and other social facilities dispersed throughout the area. The surrounding area contains some of the best farming land in Gauteng.

The business node is situated in the older northern portion of the town. The highest concentration of businesses are located along Stanza Bopape, Kruger and Lanham Streets. The business area does not have well established links with the Zithobeni town, located to the north. Formal as well as informal trade are operating in Bronkhorstspuit. The town has a strong regional service centre function that should be strengthened.

The economy is not very diversified, hence there are limited economic and industrial activities, although manufacturing constitutes a significant component of activity in the area.

The industrial area of Ovipropark is located adjacent to Stanza Bopape Street.

Single residential dwellings are located in the core area with medium density residential and community facilities including clinics, churches and municipal offices throughout the area. The town recently, mainly residential and community uses, extended southwards. This also includes the Nan Hua Buddhist Temple.

The current public transport system in the area comprises minibus-taxi, bus modes. The rail network consists of a single line running from Johannesburg - through Witbank and Nelspruit - to Maputo. The rail

network is used for both passenger transport and freight and should be extended westwards to link up with the Tshwane core area.

Bulk infrastructure is provided but capacity needs to be extended in certain areas and for future developments. Development should be contained within the current urban edge.

One of the main tourist attractions in Bronkhorstspuit is the Nan Hua Buddhist Temple. Other tourist attractions in the area include the Bronkhorstspuit dam, various nature reserves and the Sizanani Cultural Village. These are however not located in Bronkhorstspuit but a few kilometres north and south.

The Bronkhorstspuit dam runs through the node, creating a significant open space system. Recreational facilities have developed along the river including a golf course.

#### 4.2.2 RETAIL STRATEGY

The Tshwane Retail Strategy is applicable to these nodal developments. The following tables provide a better overview of the retail aspects of the nodal developments.

For these nodes to function properly they should form part of a hierarchy of nodes, directly related to the characteristics of the population it serves.

The hierarchy of retail centers as proposed in terms of the “Retail Strategy” should be applied to the region, subject to need and desirability within the region.

##### Summary of strategy

**Renewal Strategy:** In many instances retail facilities have become outdate, the increase in passing traffic has created a problem and in many instances parking facilities are inadequate. The revitalisation, upgrade and improvement of these areas should be encouraged.

Once a particular location or structure is no longer viable for retail purposes it is recommended that the structure be demolished and

converted for other uses. This strategy will be driven by the decrease in return on investment in a particular area, large vacancies and the reluctance of retailers to move into a particular area. Urban decay, poor locations and unsafe areas will be the main problems to deal with. This should also form part of a broader revitalisation strategy for areas experiencing urban decay. A renewal or upgrade strategy should also be followed by shopping centre owners. In most cases shopping centres are in need of a minor upgrade/major maintenance overhaul at intervals of 5 to 7 years.

**Maintenance strategy:** In certain cases, shopping centres have become outdate and routine maintenance no longer effective and the upgrading or the redevelopment of the centre imperative. A maintenance strategy will mainly be applicable in already built up areas.

**Expansion strategy:** The change and growth in consumer demand in a particular area as well as new retail offerings will ‘force’ landlords to expand their existing retail facilities or to include new retail types. This is especially applicable in the case of regional and super regional centres, but can also be relevant for existing business clusters.

Most regional centres continuously expand to make provision for internal growth and to accommodate new retail concepts or trends. Cognisance should be taken of this particular need. This growth will mainly be driven by the already proven success of a particular centre, its location and the needs of the market.

**Infill strategy:** In this instance reference is made to infill in already built up residential areas where retail has been lacking or undersupplied. This type of development will then capitalise on an existing market and will prevent major outflows from a particular area to other shopping destinations.

The developments range from small neighbourhood to regional (large community) centres. It is important to note that once the area is sufficiently serviced, the Infill Strategy must be replaced by the Maintenance and Expansion Strategies, and where new growth occurs, the Follow-the-roofs strategy.

**'Follow-the roofs'/ new growth areas strategy:** This strategy focuses on new growth areas and the provision of retail facilities once a certain threshold level of houses and disposable income is reached. In the case of a 'follow the roofs' strategy, timing is of critical importance. Should a centre be built too soon the retail performance will be low and casualties, especially amongst the smaller tenants, will be high. Further growth in an area should also be such that the trade area of the proposed centre will fill up sooner rather than later.

**Nodal strategy:** Nodal or urban core strategy is applicable where larger retail facilities will create agglomeration advantages for complementary retail facilities. Urban and Metropolitan cores are those nodes or urban centres that fulfil a city wide function. These nodes are not stagnant and will expand over time. It is important that these agglomeration nodal developments take place in close proximity of small to super regional centres. Different types of retail facilities are on offer and not all can be accommodated in a traditional shopping centre. The best locational advantages of these complementary retail facilities are in close proximity to the existing regional centres. Other types of retail nodes where agglomeration benefits could be created could also be established.

**Modal interchange strategy:** This type of facility depends mainly on the nature of the commuters, the area as well as the different transport modes used. Land uses in these areas should be focussed on transport orientated developments, with retail focussing on convenience and day-to-day goods. Higher density areas will therefore have a higher frequency of nodes in a smaller geographical area. The ideal locality of such nodes will have to be determined through retail studies taking into account all factors that could have a significant impact on the success of such a node.

To ensure that prospective applicants who intend developing retail facilities sufficiently address all aspects in their applications and are thoroughly briefed on all the requirements of the Municipality with regard to such developments, a pre-application consultation should be followed, where the following aspects will be addressed:

- Locational Requirements
- Urban Design
- Pedestrian movements (walkability)

- Parking requirements and layout
- Taxi ranks and public transport facilities
- Informal Trade
- Site development plans
- Retail and traffic impact studies.
- Impact on surrounding land uses

A feasibility study will be required for retail developments of greater than 4000 square metres.

## 4.3 MAJOR EMPLOYMENT OPPORTUNITY AREAS

### 4.3.1 INDUSTRIAL / MIXED USE AREAS

#### Ekandustria Area

The area located at the intersection of the R513 and Uranium Drive has responded to the good locational advantages of the area and numerous light and heavy industrial uses have developed in this area.

Ekandustria was developed as part of the "Industrial Decentralisation Programme" of the previous regime. The area was developed with significant infrastructure, which has deteriorated over the last number of years. In 2008, a Regeneration Strategy was commissioned to investigate the potential of the area to contribute to local economic development. (Ekandustria Economic Regeneration Strategy, Urban Econ, 2008)

Ekandustria consist of a northern and southern section. The northern portion was developed under the former KwaNdebele Region. It is more than 80% developed due to the fact that it was incentivised. The southern portion was developed under the former Republic of South Africa. It is less than 10% developed and was not incentivised.

Ekandustria is part of a larger economic sub region where it is greatly influenced by economic activities within neighbouring areas.

The dominant concentration of industrial activities in the larger region is located within Ekandustria and Bronkhorstspuit Light Industrial Area, the main sector represented is manufacturing as well as supporting sectors



such as transport and storage and finance. Ekandustria is regarded as a well-established industrial area servicing provincial, national and international exports. It is also regarded as the main industrial focal point in the region, where most of the local manufacturing plants are located.

Dominant manufacturing activities include plastic products, non-metallic mineral products, recycling, wearing apparel, processing of fish, fruit, vegetables, oils and fats, other food products, paper and paper products. Given the above trends it is anticipated that the only sensible mechanism to actually rejuvenate the area is vested in the reinstatement of the incentive packages. This however represents a highly improbable scenario.

Opportunity exists to introduce agro-processing opportunities within Ekangala – linked to Ekandustria. In general, it is anticipated that manufacturing opportunities will take advantage of the locational spin offs along the N4 as part of the Maputo Development Corridor and the Bronhospuit / Bapsfontein freight hub.

Statistically findings of a land use audit carried out by *Africon* in 2008 shows that 124 firms in Ekandustria are industrial in nature (44%), 2 were retail businesses (0.7%), 141 stands were vacant, 3 stands form the electricity substations, 1 structure represented municipal offices, 2 were converted into day care centres, 2 partly demolished and utilised as scrap yards, 1 was a Putco bus service station, 1 functions as a taxi rank and one was in the form of informal trade stalls. A slightly larger segment of these properties are privately owned.

- Most erven in the township are still vacant but infrastructure is available.
- Cluster developments occur around the entrance to the township
- There are currently approximately 80 firms, ranging from small business to large factories
- 47% of businesses are part of a larger value chain
- Most suppliers are situated in City of Johannesburg or City of Tshwane

The Sasol Gas plant is located to the west of Ekandustria.

#### 4.4 FUNCTIONAL ROAD CLASSIFICATION AND ACTIVITY MATRIX

The movement system in an urban environment is literally the arteries of the city – without these linkages there can be no economy, no inter-relatedness, and no “life”.

Movement systems can be used to create access, structure settlements, and promote integration, diversity and mixed land use. Movement (flows of people, finance, goods) defines the energy networks of settlements. Accordingly, more continuous lines of movement represent planes of greater accessibility and, therefore, become the more desirable connection for intensive use. Significantly, the energy potential contained in lines of movement is released through stopping, not through movement.

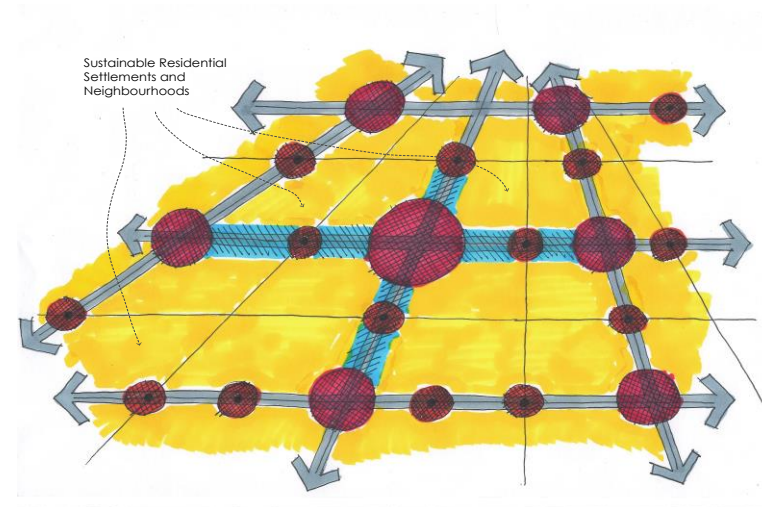
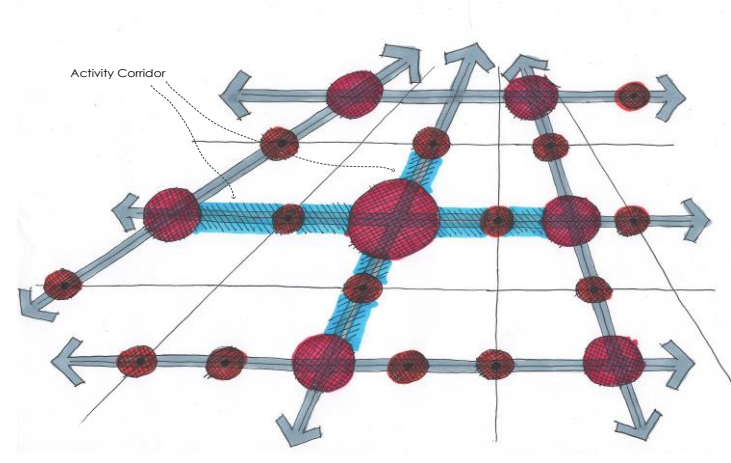
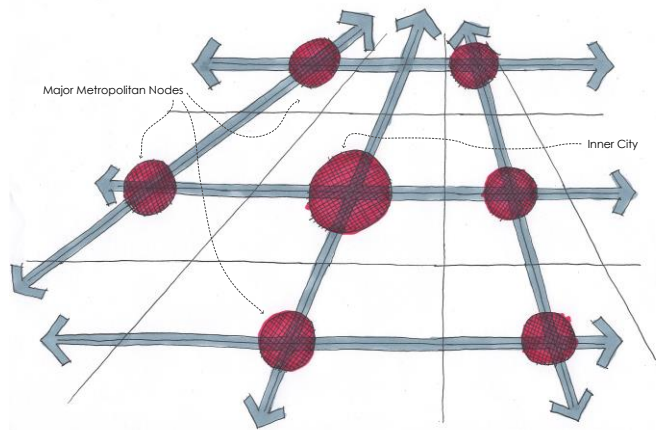
Different movement modes have varied patterns of stopping. Accordingly, they establish different rhythms of accessibility and the co-ordination of different modes enables certain points to be strongly reinforced. By creating a complex and diverse pattern of accessibility, all activities, both large and small, can naturally find a place within the structural system, depending on their need for accessibility and their ability to pay for it. Movement systems, therefore, provide a powerful planning mechanism to bring about mixed, but broadly predictable, patterns of activity, provided activities are allowed to respond to them. Existing and future mass transport routes should also be integrated into this urban system.

The movement system is an enabling feature of a city as it enables the free movement of goods and services through a region. Development trends are directly influenced by accessibility and therefore strategic planning with regard to movement is of utmost importance in the context of a growing metropolitan centre.




Land use changes for the consolidation of erven adjacent to existing nodes in residential areas will be considered on merit. Erven adjacent to roads that link such nodes with mobility or activity function within a residential area may be considered on merit. The merit will be evaluated in terms of the guidelines as set out in this chapter.



However, development along more sections of the spines should only be permitted subject to suitable access which would normally mean from internal roads. Development along the spines should only be permitted subject to access management strategies to protect the mobility function of these roads. Small scale economic activity occurs in a linear fashion along most of these roads and in the interest of job creation in these poverty stricken areas it is proposed that the trend be supported from a planning perspective. The residential compatibility of these uses should be monitored to ensure improved living conditions in these areas. Nodal concentration however should be encouraged when larger scale uses are considered. However, development along more sections of the spines should only be permitted subject to suitable access which would normally mean from internal roads.




### Spatial Concepts for Nodes and Corridors



- The interrelationship between a proposed functional road classification and an activity matrix is illustrated by the following table below and must be read in conjunction with the Nodes and Corridor Map at the end of this section.

Functional Road Classification	Land Use	Function and Design	Roads and Streets
<b>Highways</b> 	<ul style="list-style-type: none"> <li>No Direct Access to land uses.</li> </ul>	<ul style="list-style-type: none"> <li>Accommodate mainly national, regional and longer distance metropolitan trips.</li> <li>No traffic lights on these roads</li> <li>Access is restricted to the interchanges only.</li> </ul>	<ul style="list-style-type: none"> <li>N4 (PWV2)</li> </ul>
<b>Transport Corridors (Class II and III)</b> 	<ul style="list-style-type: none"> <li>Mixed land uses at BRT stations.</li> <li>Mixed uses along sections of trunk route. Mixed uses to front onto trunk route.</li> <li>High density residential along corridor</li> <li>Nodal development with a mixed use character (developments concentrated at intersections and around BRT stations)</li> </ul>	<ul style="list-style-type: none"> <li>Public –transport orientated – with the prioritising of public transport and Non – Motorised Transport over Private transport.</li> <li>Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate.</li> <li>Road space reallocation aiming to re-balance provision between private cars and more sustainable modes such as no motorised transport and the BRT.</li> <li>Limited accommodation for private cars on the Corridor.</li> <li>High accessibility for pedestrians.</li> </ul>	<ul style="list-style-type: none"> <li>None at this stage</li> </ul>
<b>Mobility Spine (Class II and III)</b>  A Mobility Spine is an arterial along which through traffic flows with minimum interruption (optimal mobility). Much smaller than highways, Mobility Spines are usually made of two lanes of	<ul style="list-style-type: none"> <li>Nodal Development at intersections.</li> <li>Mixed land uses at intersections.</li> </ul>	<ul style="list-style-type: none"> <li>Little (exception) or no direct access to land uses adjoining the spine. Access is usually through side roads and service roads.</li> <li>Involves inter-metropolitan and inter-regional routes</li> <li>No on street parking permitted</li> <li>Very few traffic lights</li> <li>Restricted pedestrian movement</li> </ul>	<ul style="list-style-type: none"> <li>R513</li> <li>R104 (Stanza Bopape Street)</li> <li>R25</li> <li>R43</li> </ul>

Functional Road Classification	Land Use	Function and Design	Roads and Streets
<p>opposite vehicle flow.</p> <p>It serves the purpose of inter-regional and metropolitan movement.</p>			
<p><b>Mobility Roads</b> </p> <p><b>(Class III and IV)</b></p> <p>Primarily serves intra-metropolitan traffic. While this route is characterised by through traffic, trends indicate pockets of mixed use developments locate alongside.</p> <p>It serves as the most important linkages between the Metropolitan Activity Areas (Capital Core/Metropolitan Cores/Urban Cores/Specialised Activity Areas)</p>	<ul style="list-style-type: none"> <li>• Medium to high density residential as per density map</li> <li>• Nodal development with a mixed use character</li> </ul>	<ul style="list-style-type: none"> <li>• Limited direct access permitted (not frequent)</li> <li>• Services roads to enhance access opportunities</li> <li>• On street parking also permitted close to major intersections and in the vicinity of significant nodes only</li> <li>• Plays a collector and distributor function though trips are of a short distance</li> <li>• Pedestrian movement along the route in various parts</li> <li>• Public transport very important along Mobility Roads</li> <li>• Provide public transport facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Cathie Street</li> <li>• Mulder Street</li> <li>• Lanham Street (North of Kruger Street)</li> </ul>
<p><b>Activity Spine</b> </p> <p><b>(Class III and IV)</b></p> <p>These streets are characterised by slower moving traffic due to the nature of activity along the street (activity is of paramount importance, mobility is compromised to allow the activity). The street provides a focus for various non-residential and medium to higher density residential developments that create a vibrancy and specific identity.</p>	<ul style="list-style-type: none"> <li>• Mixed uses along the spine</li> <li>• Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>• Urban design guidelines important to guide the development along the spine.</li> </ul>	<ul style="list-style-type: none"> <li>• Pedestrian/cyclist oriented environment with traffic calming for cars where appropriate</li> <li>• High accessibility to land and normally only gaining access from a service road.</li> <li>• Mixed land uses along service roads</li> <li>• High density development with mixed uses must be promoted in suitable locations along these routes.</li> <li>• On-street parking where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>• Stanza Bopape Street (sections between Cathie Street and R25)</li> <li>• Louis Botha Street (section between Cathie and Burger Streets)</li> <li>• Charl Cilliers (sections between Cathie and Burger Streets)</li> <li>• Lanham Street (sections between Kruger and De Le Ray)</li> <li>• Kruger</li> </ul>

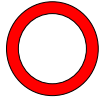
Functional Road Classification	Land Use	Function and Design	Roads and Streets
<b>Activity Street</b>  <b>(Class IV and V)</b> Local collector road within suburb, characterised by small scale (in keeping with the existing character of surrounding residential developments) local economic activities and social amenities	<ul style="list-style-type: none"> <li>• Low-intensity mixed land uses with a focus on community services and economic opportunities</li> <li>• Low to medium density residential developments</li> <li>• Interface with adjoining lower intensity residential developments to be treated sensitively</li> <li>• Urban design guidelines important to guide the development along the street.</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (60km/h and less)</li> <li>• Mixed land uses along service roads</li> <li>• Must be provision for pavements</li> <li>• Parking on site</li> <li>• These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>• Kort Street</li> <li>• Rooth</li> <li>• Delaray</li> <li>• First</li> <li>• Burger</li> <li>• Market</li> <li>• Cornelis</li> <li>• Joubert</li> <li>• Prisnloo</li> <li>• Fiddes</li> <li>• Local collector in Ekangala</li> <li>• Louis Botha Street (sections between Kudu and Cathie Streets)</li> <li>• Hortensia</li> <li>• Nan-Hau</li> <li>• Matroosberg</li> <li>• Madiba Street in Rethabiseng</li> <li>• Mothibe Street in Zlthobeni</li> </ul>
<b>Residential collector</b>  <b>(Class IV a and b)</b> Local collector road within suburb, characterised by small scale social amenities	<ul style="list-style-type: none"> <li>• Low-intensity community services and as per Council consent</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (50km/h and less)</li> <li>• Must be provision for pavements</li> <li>• Parking on site</li> <li>• These streets serve primarily local traffic accessing the served area and feeds into arterial roads</li> </ul>	<ul style="list-style-type: none"> <li>• As per map</li> </ul>
<b>Residential collector</b>  <b>(Class V)</b> Local road within suburb	<ul style="list-style-type: none"> <li>• Residential Street</li> <li>• Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>• Characterised by low speeds (50km/h and less)</li> <li>• Parking on site</li> <li>• Residential uses</li> </ul>	<ul style="list-style-type: none"> <li>• As per map</li> </ul>



## LAND USES

The desired activities along the activity corridors, streets and nodes is illustrated by the following notation and definition must be used as a guideline and must be read in conjunction with the Nodes and Corridor Map at the end of this section.

### TRANSPORT-ORIENTATED DEVELOPMENT (TOD)



Transit-orientated development (TOD) is a mixed-use residential or commercial area designed to maximize access to public transport, and often incorporates features to encourage transit ridership. A TOD neighbourhood typically has a centre with a transit station or stop (train station, metro station, tram stop, or bus stop), surrounded by relatively high-density development with progressively lower-density development spreading outward from the centre. TODs generally are located within a radius of one-quarter to one-half mile (500 to 700 m) from a transit stop, as this is considered to be an appropriate scale for pedestrians.

### NODE



A node is a place where both public and private investment tends to concentrate. Nodes are usually associated with major road intersections, or with public transport nodes such as railway stations and taxi ranks. It offers the opportunity to locate a range of activities, from small to large enterprises and is often associated with mixed-use development including high density residential uses. Nodes differ in size, the types of activity that occur within them, the size of the areas served and the significance within the city.

## EMERGING NODES

1115



Over the past few years, certain economic, social and/or residential opportunities have begun to emerge in various localities in the city. The realisation of these localities into fully fledged nodes will depend on a number of factors. While the future of these nodes is uncertain, the potential for greater development is clear. Identifying future urban areas also provides an opportunity to plan for the provision of new infrastructure and timely planning for growth that is sustainable. Emerging nodes will be managed subject to growth management principles.

### RETAIL



Areas of concentration of mixed land uses with the focus on retail

### MIXED USES



Refers to land uses such as offices/commercial/residential/industrial/retail/entertainment/institutional ect. It also refers to a mix of uses within a specific area (node or corridor). The advantage of mixed uses is that access and convenience are increased as transportation distances are decreased. The combination depends on the specific area. A mixed-use could refer to retail at street level, institutional on the floor above and residential on the upper floors, or only use per erf. Principles regarding retail, commercial and industrial uses / rights are still applicable as indicated in this document. Mixed land use in an industrial area could include industry, commercial and retail uses.

## OFFICE USES



Means land and buildings used as an office, retail industry, limited places of refreshment, fitness centre, hairdresser, nail bar, medical consulting rooms, medical workshops such as, dental technician, prosthetist, orthotist, pathologists, optometrist technician, or for other businesses such as inter alia beauty salon, pet salon, beauty/health spa, funeral undertaker, place of instruction, uses subservient to the main use. Uses must be compatible to the surrounding area and must focus on serving the local community.

## INDUSTRIAL USES



Light or heavy industrial or high-tech and commercial uses. The appropriate intensity of development to be determined on a local level.

## GENERAL PRINCIPLES IN NODES, CORRIDORS AND MIXED USES AREAS

One of the main concerns for non-residential development and high density development within residential areas is the compatibility and interaction of land use changes to the abutting residential uses. The existing characteristics of an area and street plays an important role in the determination of land uses that is considered appropriate and are compatible with the residential component. The permitted land uses shall only be accommodated along the street up to the mid-block line of blocks running parallel to a street or adjacent service lane.

The following general principles are applicable:

- Encourage development characteristics that spread economic impact (Spluma, Objective, promote economic and social inclusion).

A “walkable” environment- place commercial, housing, jobs, parks and civic uses within walking distance of the community and transit stops (**National** Development Plan, GSDF, Principle)

- Encourage infill and redevelopment along activity streets corridors within existing neighbourhoods.
- A mix of residential, retail, commercial and community uses needed along activity corridors and streets. (Spluma, Principle 7(a) Spatial sustainability).  
Activity streets must be frontage streets, with emphasis on public interface.
- Locate jobs, retail and commercial near residences to reduce car dependence. (National Development Plan, GSDF, Principle)
  - Encourage active interfaces between buildings and streets.
  - Larger uses should locate at the edge of the circle allowing a fine grain mix of use at the centre
  - Residential and non-residential uses combined within the same or adjacent blocks.
  - Encourage vertical mixing of uses.



Source: City of Tshwane; West Capital Urban Design Framework 2014

The following criteria shall determine if a particular erf is suitable to accommodate a permitted land use change:

- Acceptable safe access possible
- Adequate on-site parking available
- Adequate space available for landscaping purposes
- Acceptable impact on residential component
- Site characteristics
- Availability of services

The following Development Guidelines shall be used:

#### **FAR**

- Shall be determined by erf size, parking to be provided on site and the influence of privacy with regard to the surrounding residential properties.

#### **HEIGHT**

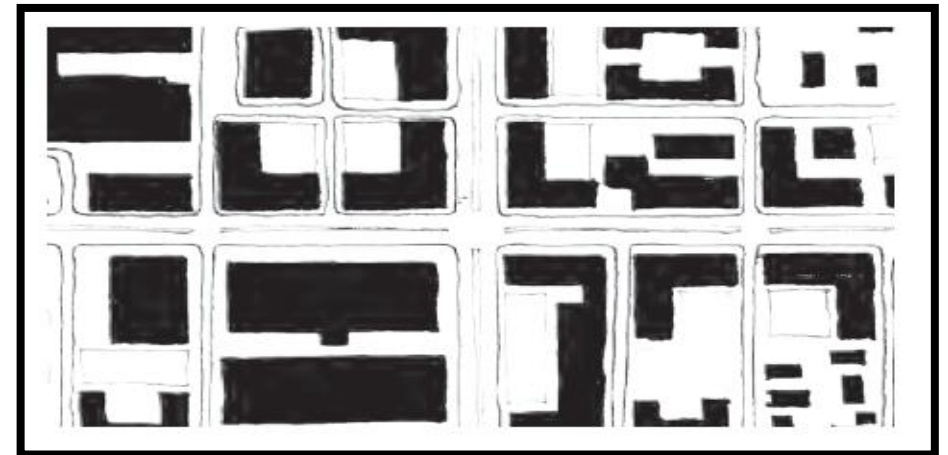
- 2 storeys or higher, depending on the locality and surrounding land uses. Clause 26(2) (b) of the Tshwane Town Planning Scheme, 2008, shall be excluded.
- Relate building height to street width and intended character. Urban centres are characterised by a strong sense of enclosure with street spaces that are generally lined by buildings set along the front property boundary.
- Solar access to adjacent structures, situated to the south of a property to be developed, shall be protected through as far as possible from the adjacent structure.



Source: City of Tshwane: Centurion CBD Framework, 2013

- To ensure no overlooking, the following is applicable:
  - No balconies shall be established on the side of the building abutting a residential property.
  - Windows shall either be located at such height or distance from the boundary of a residential property, that they do not enable overlooking.

#### **BUILDING PLACEMENT**



- Building position is important in the development of the complete and liveable street concept.
- Buildings must be placed as close as possible on the street boundary.
- Building should be staggered along street boundaries in order to break long street frontages.
- Orient buildings to sidewalks
- Place buildings at the sidewalk (perimeter blocks)
- Street and building configuration should be designed to create vistas, or to terminate views with a landmark feature, building, or public space.
- Buildings at intersections within the corridor and activity street should provide for landmark features.

### BUILDING LINES

- Build to lines or minimum 2 meter building lines on street boundaries.
- Buildings must be placed as close as possible to the erf boundary adjoining streets.
- Adequate side building lines should be imposed to protect the neighbouring residential component.
- The area within the building line should be used mainly for parking purposes and landscaping. Minimum 16% of the area should be covered with soft surfaces.

### PARKING

- All parking shall be accommodated on the erf
- No off-street parking shall be allowed.
- Off street only in TOD.
- Carports shall be located in such a manner that it is not visible from the street
- Parking relaxations will be applicable in TOD and Corridors.

- Parking ratios per area and per application.
- Developers should determine their own parking ratio in certain areas.
- Parking ratios will depend on parking available.
- Discouragement of the use of private car must be reflected in the parking ratios
- Reduced private parking
- Shared parking can be allowed regardless of whether the zoning ordinance requires any off-street parking, or whether public parking is available
- Parking should be provided sub-surface as far possible.

1118

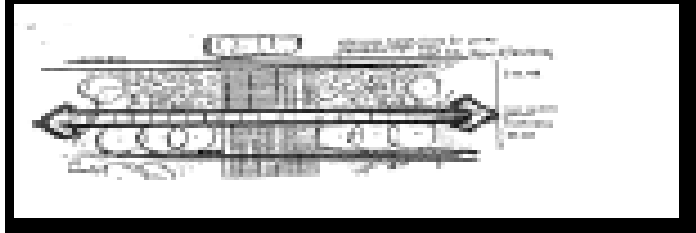
### PHYSICAL BARRIERS

- Walls abutting neighbouring residential properties shall be maintenance free on the side of the adjacent property and constructed in brickwork. The wall shall at least be 2,1m in height to offer more protection to the abutting residential activity. No prefabricated concrete walls are allowed
- A well designed and articulated boundary wall of brick should be constructed on the other boundaries of the site. No prefabricated concrete walls are allowed. The boundary wall should be minimum of 2 meters high and a maximum of 3,0 meters high and should be maintenance free on the side of the adjacent property;
- Physical barriers along the street boundaries shall be semi-transparent to enhance landscaping, architecture and aesthetics. Set back upper levels of tall buildings to help create a pedestrian scale at street level and to mitigate unwanted wind effects.

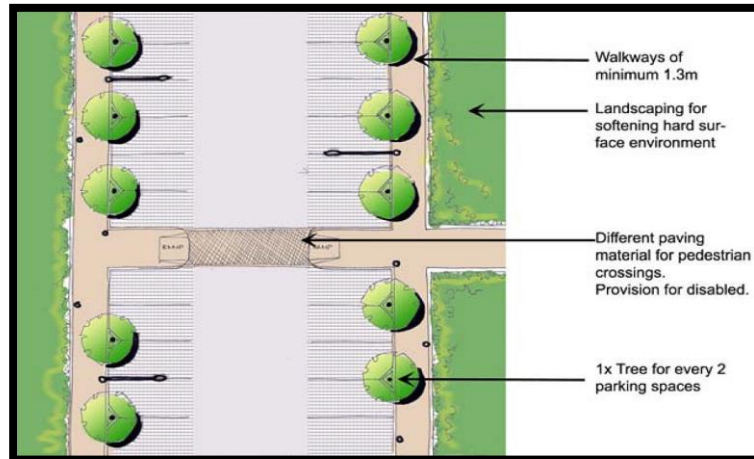


## LANDSCAPING

- Indigenous landscaping shall be incorporated.
- The road reserve between the erf boundaries and the street shall be landscaped in accordance with the landscape development plan. The landscaping should include design measures to prevent on-street parking and include a walkway (at least 2 m wide) to ensure pedestrian safety.



- One tree shall be provided for every two parking spaces.
- Soft landscaping shall form part of parking areas.



## ADVERTISING

- Advertising must be as per Council policy and guidelines.

## HEALTH MEASUREMENTS

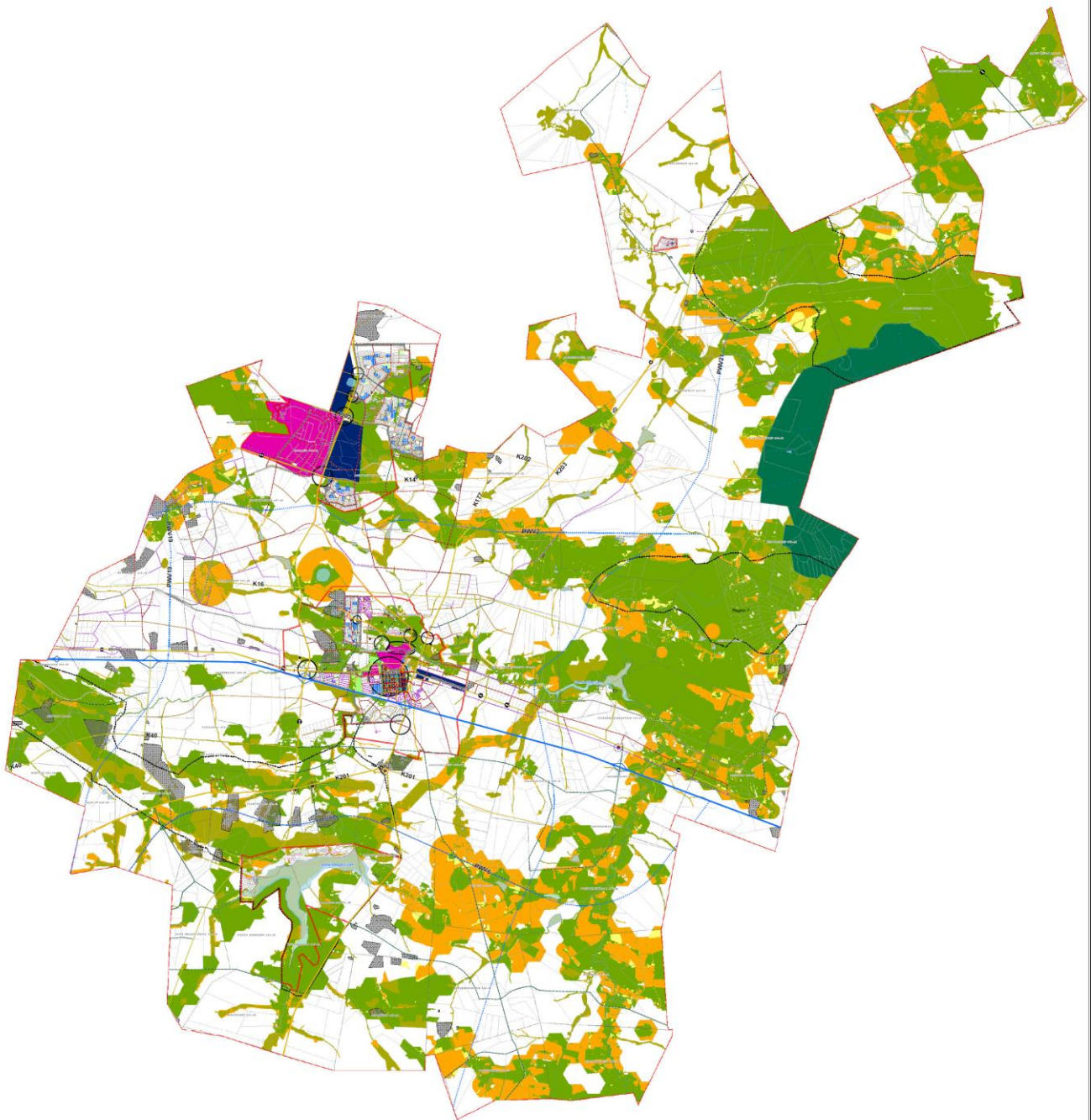
1119

- Air-conditioning units or compressors shall not be mounted to the exterior walls of buildings without the prior consent of the Municipality.
- Any requirements for air pollution-, noise abatement- or health measures set by Municipality shall be complied with to the satisfaction of the Municipality without any costs to the Municipality.

All refuse areas and service yards shall be screened off with a solid wall and /or landscaping. Refuse areas shall be placed as far as possible from any residential property.



## Nodes and Corridors Map - Region 7



## Legend

Water Shed / Development Edge  
Urban Edge 2013  
CBD 25 km Radius  
Gautrain Station  
Proposed IRPTN  
Railway  
Proposed Railway  
Proposed Station  
Tourism Potential  
Service Industry and Mini Storages  
Landfill

**Highways**  
Existing  
Proposed  
Transport Corridor  
Class 4 (non-residential)  
Class 4 (Residential)  
**Mobility Spine**  
Existing  
Proposed  
**Mobility Road**  
Existing  
Proposed

**Activity Spine**  
Existing  
Proposed  
**Activity Street**  
Existing  
Proposed

**Land-Use**  
Mixed Uses  
Office  
Airport  
Campus  
Future Regional Cemetery  
Industrial  
Educational  
Mining  
Cemetery  
Local Nodes  
Transport Orientated Development  
Transport Corridor (BRT phase 1)  
Emerging Nodes  
Retail Nodes

**Community Service Centres**  
Community Service Centre  
Human Settlement  
Proposed Rural Service Centre  
Rural Service Centre

**Open Space**  
Conservation Areas  
Drinking Game Reserve  
Game Reserve Startup  
Nature Reserve  
Parks  
Critical Biodiversity Area 1  
Critical Biodiversity Area 2  
Ecological Support Area 1  
Ecological Support Area 2  
Protected Area (Formal)

## Roads Masterplan

**CLASS**  
U1 Class 1\_Primary metropolitan distributor  
U2 Class 2\_Metropolitan distributor  
U3/A Class 3/A\_District distributor  
U3 Class 3\_District distributor  
U4 Class 4(a)\_Collector (non-residential)  
U4 Class 4(b)\_Collector (Residential)  
Class 5(a)\_Local street (Non-residential)  
Class 5(b)\_Local street (Residential)  
De-Classification\_U1  
De-Classification\_U2

De-Classification\_U3  
De-Classification\_U4(a)  
De-Classification\_U4(b)  
De-Classification\_U5(a)  
Proposed Class 3/A\_District distributor  
Proposed\_U1 Class 1\_Primary metropolitan distributor  
Proposed\_U2 Class 2\_Metropolitan distributor  
Proposed\_U3 Class 3\_District distributor  
Proposed\_U4 Class 4(a)\_Collector (Non-residential)  
Proposed\_U4 Class 4(b)\_Collector (Residential)  
Proposed\_Class 5(a)\_Local street (Non-residential)  
Proposed\_Class 5(b)\_Local street (Residential)

Date Saved: 2011/03/23  
Path: C:\Users\calveth\OneDrive\Documents\Andre du Plessis\SSDF\Region 7 nodes and corridors June 2013.mxd

## 4.6 RESIDENTIAL

### Current City Form of Tshwane

- Apartheid left South Africa a Fragmented Spatial Framework
- Urban Sprawl and dysfunctional urban form.
- Low densities mean that public transport cannot benefit from economies of scale.

### Solutions for Tshwane

- Reverse the spatial patterns of apartheid.
- Plan for compact cities and transport corridors.
- Compact cities – more infill and multi –story developments, mix of land uses.
- Density must be public transport orientated.- focus on commuter Rail and BRT.
- Integrate land –use planning and transport planning.
- Reduce the need to travel.
- Public transport must be prioritised over private transport.
- Embrace BRT's monorails, NMT, Pedestrians.
- Disincentives private car usage – reduce the number of vehicles on the road.

Residential development within Region 7 should be guided by the principles contained in the Tshwane Compaction and Density Strategy. The core principles of this strategy are:

- Density must contribute to the overall structure and functionality of the metropolitan area in that it takes place in a balanced, focussed, structured and meaningful way
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.
- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment

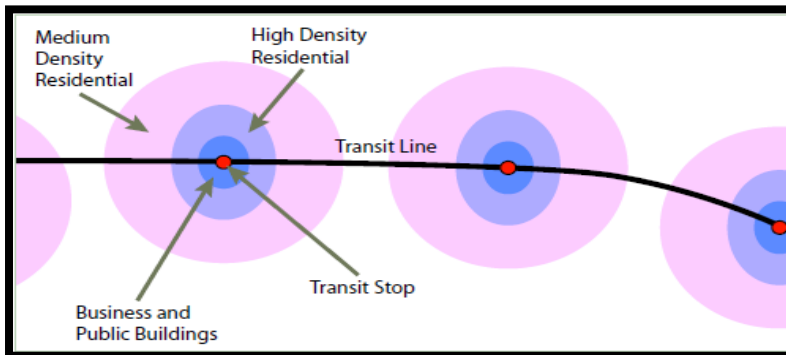
- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future
- Areas targeted for densification should be well served by social facilities such as education, open space, recreation etc. or should have the potential to be well served by social facilities
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Retain, enhance and encourage cultural assets
- Density's for old age homes and retirement centres, hostels and student accommodation will be evaluated on their own merits were location and accessibility to social infrastructure will play an important role.

Another important underlying principle of the Tshwane Compaction and Density Strategy, is that higher density developments should not merely be dictated by density, but that design and typology considerations should be of critical importance, as these are the factors that in reality make either a positive or negative contribution to the overall quality of the environment in which they are situated. Density and compaction is not an end in itself, but a means to achieve an overall efficient, integrated and sustainable metropolitan area. Density proposals within Region 7 should therefore not be done for the sake of density, but to achieve a range of other goals, such as :

- increasing accessibility to public transport facilities
- creating the necessary population thresholds for economic growth and viable business development (especially small and medium sized enterprises) in specific areas
- minimising distances between home and work (i.e. integration of higher densities with employment opportunities)
- containing outward expansion of the urban footprint

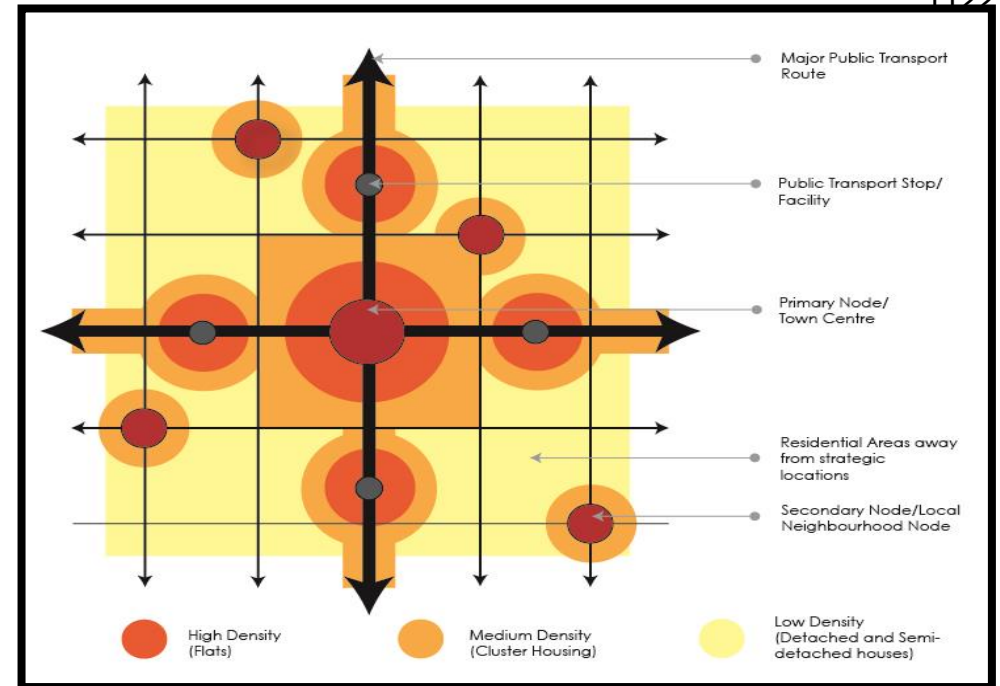
The benefits of Densification and Intensification:

- **Concentrations of people** in areas of high urban activity
  - Access of people to opportunity increase
  - Population threshold increases which means that a viable market for business and transport is established
  - Density is significant for the economic performance of a city
- **Urban efficiency**
  - Travel distances and time
  - Cost of Engineering Infrastructure
  - Public transport becomes more viable
  - High density assures the maximisation of public investments including infrastructure, services and transportation and allows efficient utilisation of land



The strategy proposes four key density zones, namely:

- Concentration Zones
- Linear Zones
- Suburban Densification Zones



### Criteria for densification

Applications for densification shall be evaluated against the following criteria: proposed form of property, height, whether sufficient parking is available, privacy of adjoining owners, consolidation of stands and access, northern orientation, services available, and unit typology, size of the property, open space.

Densification throughout the city will still be in accordance with availability of services and geological conditions such as dolomite restrictions.

Refer to the density map for a schematic illustration of densifications; it is important to note that walking distances to public transport will be applied in the evaluation of density applications.

All densification applications should adhere to the above mentioned criteria and development guidelines as indicated as in 4.5.1.



#### 4.6.1 CONCENTRATION ZONES



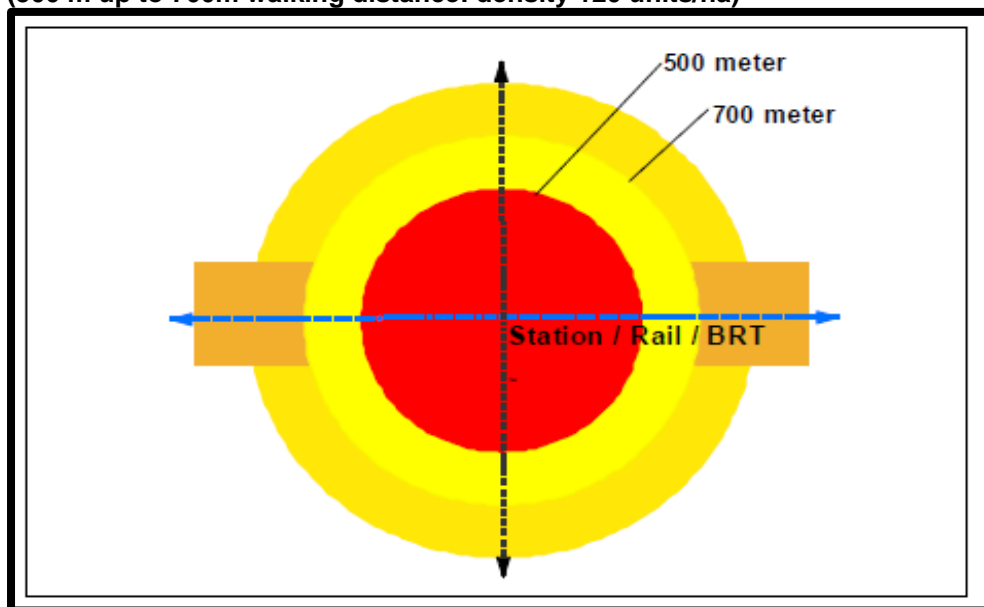
( Less than 500 m walking distance: density + 200 units/ha)

The **Concentration Zones** are the primary focus areas for high density residential developments and are centred around nodes of metropolitan importance such as Metropolitan and Urban Cores (High Density Zones), Transit Promotion Zones and other strategic locations.

**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within a 700m walking radius of a railway station or a major public transport node.

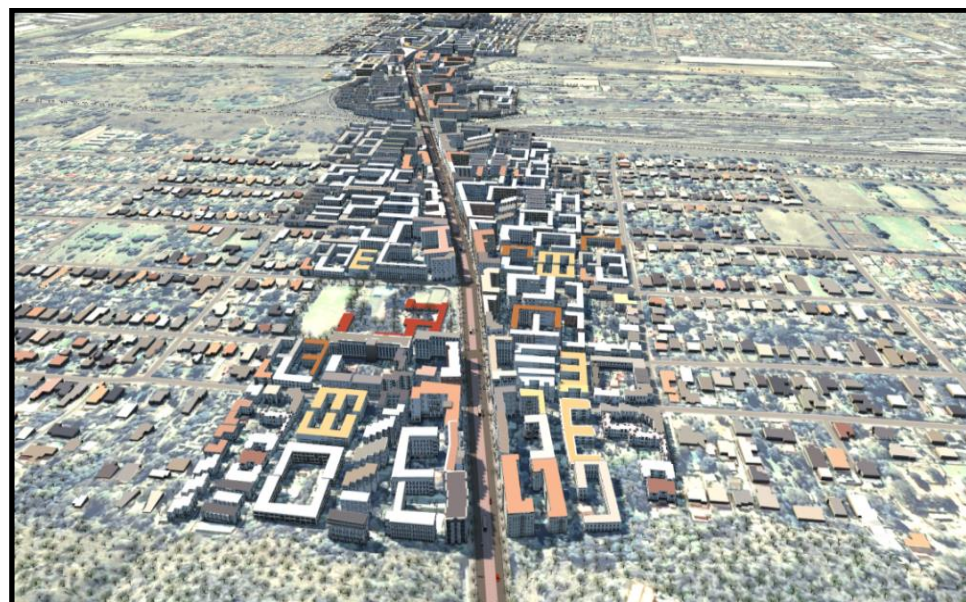


(500 m up to 700m walking distance: density 120 units/ha)



**Transit Promotion Zones** refer to those nodes that are centred on transportation nodes such as stations and large intermodal transfer sites, and where Transport Orientated Development should take place. Transport Orientated Development is defined as a unique mix of high density and intensity land uses located within an 700m walking radius of a railway station or a major public transport node. The areas around the existing Gautrain and PRASA railway stations and around the proposed BRT / ITPN stations have been earmarked for higher density transit promotion zones. Densification should take place within a 900m walking radius of a BRT / IPTN station. Densities of + 200 units/ha in nodes and around rail stations will be applicable for the first 500 m walking distance and up to 120 units / ha for the area between 500 m and 900 m. The walking distances will be determined by the distance between stations. The closer the station are to one another the shorter the walking distances will be.

The concentration zones and linear zones call for a drastic change in the built environment in terms of densities, typologies, built form and urban design, moving away from suburban typologies in these areas toward a more urban fabric and typologies.



The concentration zones and linear zones call for a drastic change in the built environment in terms of densities, typologies, built form and urban design, moving away from suburban typologies in these areas toward a more urban fabric and typologies.

**High density Zones** in Region 7 are focussed on the Bronkhorstspuit node.

The concentration zones and linear zones call for a drastic change in the built environment in terms of densities, typologies, built form and urban design, moving away from suburban typologies in these areas toward a more urban fabric and typologies.

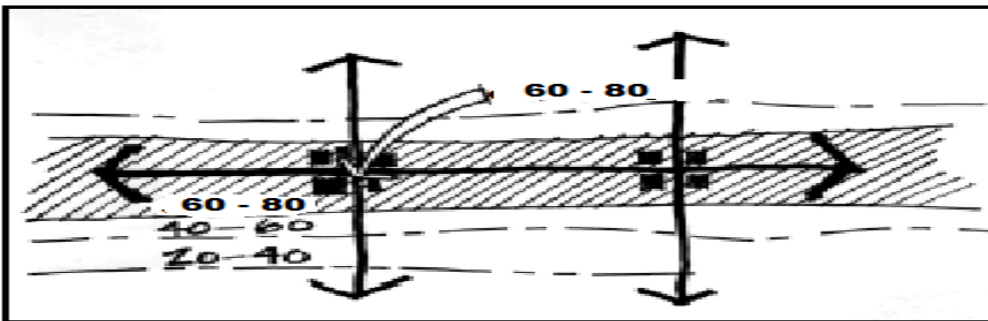
Densities within Concentration zones should not be developed at densities of below 80 units per hectare or less than 3 storeys.

#### 4.6.2 LINEAR ZONES (CORRIDORS AND SPINES)



**( Up to more or less 200 m walking distance from public transport: density up to 80 units/ha)**

For the purpose of densification, linear zones refer specifically to high intensity activity areas that are located along major routes. The routes usually carry high volumes of traffic to areas such as Zones of Concentration and Transit Promotion Zones and thus encourage the feasibility of public transport on strategic routes. The linear zones also connect the urban core areas with one another within the City.



The identification of these linear zones should follow a focussed, selective and phased approach, where only the most important routes are identified in the short term. This is necessary in order to achieve a high level of concentration along each of these routes rather than dispersing development along too many routes, and then the critical mass for public transport viability is never achieved. In terms of the densification strategy, linear zones refer specifically to high activity areas that are located along major routes. The main aim of the routes should be to encourage public transport.

The following areas are deemed existing or potential development corridors along the N4 highways within Region 7 where mixed land uses with the focus on job opportunities will be supported:

- The areas between Stanza Bopape Street, Burger and Cathie Street in the nodal area of Bronkhorstspuit.
- The area around the Stanza Bopape street between the Bronkhorstspuit nodal area and the R513 off ramp on the N4.
- That along Cathie Street, densification be allowed up to Von Willich Street in Versterpark Holdings due to the availability of services nearby (services may only require upgrade)
- The area to the East of Bronkhorstspuit, especially along Erasmus Extension 5 and the farm Nooitgedacht 525 which is sandwiched by the N4, R104 (Balmoral Road) and R25 to Kempton Park be earmarked for high density uses once water capacity has been upgraded.
- The area to the north eastern part of Bronkhorstspuit be also earmarked for high density as there are approved developments in these areas.



#### 4.6.3 SUBURBAN DENSIFICATION ZONES



(density 10 – 25 units/ha)

Suburban Density Zones are those existing suburban areas where there is potential for moderate densification because of the area's strategic location within the city (within a 25 km radius of the City). This zone makes for good application in areas that are close to places of employment, major retail centres and prominent transport routes, but where it is still desirable and warranted to maintain a suburban character. These areas are indicated in yellow on the Density Map. The maximum density in these areas will be restricted to a maximum 25 dwelling units per hectare. The exceptions will be the nodal / core areas (as indicated on the densification map) within the suburban areas where densities of up to 200 units / dwelling-units per hectare can be supported depending on available public transport and social amenities. Activity streets in suburban areas as indicated in the RSDF also earmarked for densification up to 80/units per hectare.

Whereas the Concentration and Linear Zones propose a particular urban environment, both the Suburban Density Zone and the Low Density Zone are distinctly suburban zones.

Within Suburban Density areas the core principles of densification are:

- Densification must contribute to the provision of lifestyle choices within the specific area. As an example provision must be made to sustain all the lifestyle phases from young working people and students, families with young children, and elderly people.
- Appropriate higher density housing opportunities at appropriate locations must be provided for all income groups to promote the aims of social integration.
- Specific areas of opportunity or need for restructuring should be identified (areas that should not be densified for specific reasons should also be identified)
- Areas targeted for densification should be treated as whole environments, i.e. densification should not happen in isolation but as part of a larger program aimed at creating a suitable high density environment.

- Areas targeted for densification should be well served by public transport, or have the potential to be well served by public transport in future. Pedestrianisation must be included into the densification process.
- Areas targeted for densification should be well served by social facilities such as education, place of public worship open space, recreation etc. or should have the potential to be well served by social facilities. Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase.
- Preserve and enhance open space, farmland, natural beauty and critical environmental areas.
- Encourage community and stakeholder collaboration.
- Retain, enhance and encourage cultural assets

The various housing and densification typologies must be employed in a structured manner within this Zone, with cluster housing and apartments located adjacent to strategic points within the neighbourhood such as local nodes, public transport facilities on a major public transport route, education facilities and parks. These developments shall be subject to urban design principles and site development plans. Sustainable neighbourhood planning seeks to achieve long-term socially, environmentally and economically viable communities. The main objective is to create pleasant, safe and sustainable residential neighbourhoods with a mix of residential typologies, community and social facilities, recreation areas such as parks, sports fields and playgrounds, access to public transport for those who need it, and local economic opportunities.

*“A successful and sustainable neighbourhood is a product of the distances people have to walk to access daily facilities, the presence of a sufficient range of such facilities to support their needs, and places and spaces where a variety of activities can take place.”<sup>1</sup>*

In essence, within this zone the urban form remains the same as it currently is, only with an increase in general density and a change in typology and density around strategic points within these areas.

Greenfields development (farm portions and small holdings) will be handled on merit and the general principles of density will apply.

<sup>1</sup> Source: Homes and Communities Agency: Urban Design Compendium 1

#### 4.6.4 LOW-DENSITY ZONES



(up to 10 units/ha)

Low Density Zones are so called because those are the areas in the city where lower densities are actually more desirable, either because of location or *bona fide* special circumstances. The majority of these zones are the peripheral areas that are removed from opportunities such as economic and employment nodes and mass transportation opportunities and is characterised by long travelling distances to areas of employment. In these areas, higher densities serve no purpose or could actually be detrimental to the functionality of the city, and it is preferable not to encourage population concentrations in these areas. The Low Density Zone however also includes areas that are more centrally placed, but which have special characteristics that need to be preserved, and hence a low density is considered justifiable. These include areas along ridges, where lower densities are more conducive to a built form that is sensitive to the ridge quality from a visual point of view, including issues such as skyline, further spacing of buildings etc. These low density areas will also serve to provide visual relief in between adjoining higher density areas.

Ideally, a Low Density Zone's density should not exceed 10 dwelling units per hectare. Encouraging low densities in these areas are also important to ensure that the higher densities are directed and actually take place where they are desirable and required.

The following areas have been identified within Region 7 as Low Density Zones, even were a density of less than 10 units per hectare shall prevail. Erven directly adjacent to undeveloped Ridge areas as indicated on the densification map.

#### 4.6.5 RURAL DIVISIONS



Divisions of farm portions and agricultural holdings will be according to the densification map. The basic principle applicable will be that division of up to 1 ha and more will be allowed in areas with Council approved piped water.

Division of 5 ha and more will be supported in areas without piped water except in cases of high agricultural potential and environmentally sensitive areas. The density map for region 7 only indicates the urban and rural areas. Detail regarding the division of farm land will be determined on merit with the basic principle of division of up to 1 ha and more will allowed in areas with Council approved piped water. Division of 5 ha and more will be supported in areas without piped water except in cases of high agricultural potential and environmentally sensitive areas. The high agricultural potential areas will be restricted to 21 ha.

Divisions must take flood lines and water courses into account when applied for. The following table is applicable to Region 7 density plan.

Notation	Size	Services
	5000 m <sup>2</sup> (No second dwelling unit allowed)	Piped water
	1 ha	Piped water
	2 ha	Piped water
	4ha – 5ha	Piped or Borehole Water
	8.5 ha	Piped or Borehole Water
	10 ha	Piped or Borehole Water
	+20 ha	Piped or Borehole Water

#### 4.7 SUSTAINABLE HUMAN SETTLEMENTS

Sustainable Human Settlements should be provided in accordance with the guidelines as set out in the above Tshwane Compaction and Densification Strategy. Such settlements should be developed within concentration zones and along linier zones with the supporting densities as prescribed. Further human settlements should be provided in close proximity of social amenities and public transport.

##### 4.7.1 INFORMAL SETTLEMENT UPGRADES AND RELOCATION

In Region 7 about 10 500 informal units exist and need basic services.

- Existing informal settlements that fall outside of the urban edge should not be provided with in-situ upgrading. They should rather be relocated
- Informal settlements should only be relocated to areas that geotechnically sound and do not fall within a flood line.
- Compaction, infill and densification should serve as key guiding principles for both in-situ upgrading and relocations.
- Informal settlement management plans should incorporate landscape planning

##### 4.7.2 SOCIAL HOUSING



- Housing should provide a range of typologies within strategic nodes in order to address both social and economic restructuring
- Housing typologies should allow for diversity and significant
- densification in order to address the green economy of spatial planning

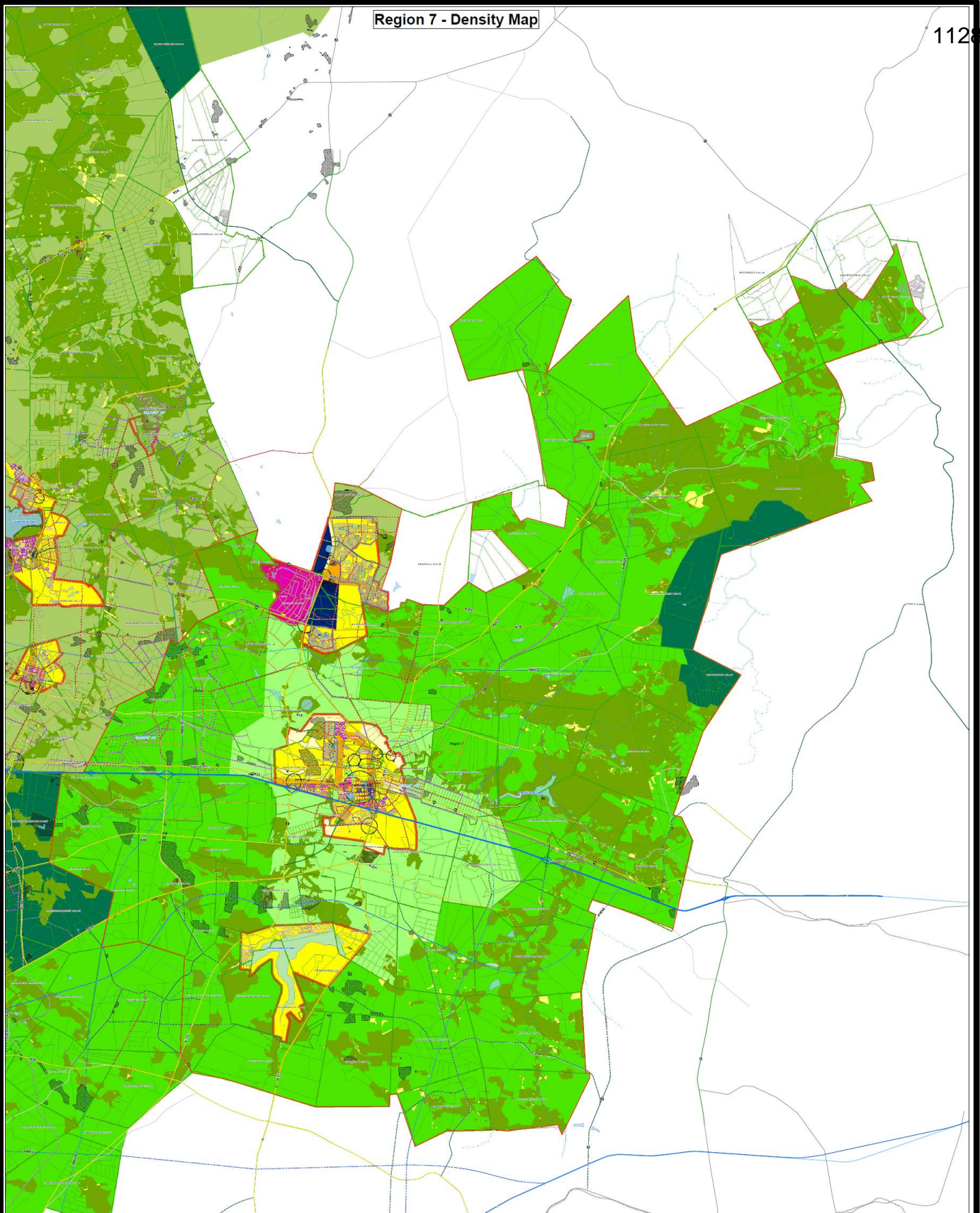
- Brownfield development is preferable to greenfield development in order to achieve infill development,
- compaction and rejuvenation of decaying areas (where applicable)
- Housing location should be targeted towards significant places of work opportunity, i.e. metropolitan nodes and primarily and urban cores
- Housing developments should include the provision of or be located next to safe and efficient linkages with space for pedestrians and cyclists.
- Housing location should be well planned to ensure connectivity via public transport to other places of significance in the metropolitan area
- Urban design, landscaping and streetscaping should be incorporated in housing schemes
- Social housing should be an effective component of sustainable human settlements i.e. providing or being located close to social amenities and facilities
- Mixed-use residential buildings should be implemented where possible, allowing for an optimal use of all available resources, supporting transit-oriented development and providing a sustainable living environment

Movement and Connectivity for more information on transit oriented development). Transit-oriented development supports the concept of the 20 Minute Neighbourhood.

A mix of housing typologies is also proposed in Zithobeni X8, X9 and Zithobeni Heights Townships. The principle of “Breaking New Ground” is to be followed when these townships are developed. Schools, Businesses and other social facilities are to be developed as part of these townships.

Zithobeni X8 and X9 have recently been formalised and consist of about a 2000 single residential stands. These residential stands will be fully serviced and allocated to the identified beneficiaries. The Township establishment process started during 2013 and it is near finalisation. Future phases will include about 600 medium density housing. Part of the land will also be used for the development of 2 business sites, 2 schools, 2 institutional sites, 3 churches and public open spaces. The township also makes provision for 2 light industrial sites.





# Legend

## Density

- Transit Zone
- 500m Walking Distance (200/ha)
- 700m Walking Distance (120/ha)
- Linear Zone
- High Density
- Suburban Density
- Low Density Zone
- Low Density Zone
- Local Nodes
- Transport Orientated Development
- Transport Corridor (BRT phase 1)

## Rural Density Group

- 5000m<sup>2</sup>
- 1 Ha
- 2 Ha
- 4 Ha-5 Ha
- 8.5 Ha
- 10 Ha
- >20 Ha

## Land-Use

- Cemetery
- Mixed Uses
- Office
- Airport
- Campus
- Future Nodes
- Future Regional Cemetery
- Retail
- Educational
- Mining
- Water Shed / Development Edge
- Urban Edge 2013
- CB0 25 km Radius
- Proposed IRPTN
- Railway
- Proposed Railway
- Proposed Station
- Landfill
- Future Development Area
- Community Service Centres
- Community Service Centre
- Human Settlement
- Proposed Rural Service Centre
- Rural Service Centre
- CBA Categories
- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Protected Area (Formal)

## Highways

- Existing
- Proposed

## Activity Spine

- Existing
- Proposed

## Activity Street

- Existing
- Proposed

## Mobility Spine

- Existing
- Proposed

## Mobility Road

- Existing
- Proposed

## Roads Masterplan

### CLASS

- U1 Class 1\_Primary metropolitan distributor
- U2 Class 2\_Metropolitan distributor
- U3/A Class 3/A\_District distributor
- U3 Class 3\_District distributor
- U4 Class 4(a)\_Collector (Non-residential)
- U4 Class 4(b)\_Collector (Residential)
- Class 5(a)\_Local street (Non-residential)
- Class 5(b)\_Local street (Residential)
- De-Classification\_U1
- De-Classification\_U2
- De-Classification\_U3
- De-Classification\_U4(a)
- De-Classification\_U4(b)
- De-Classification\_U5(a)
- Proposed Class 3/A\_District distributor
- Proposed\_U1 Class 1\_Primary metropolitan distributor
- Proposed\_U2 Class 2\_Metropolitan distributor
- Proposed\_U3 Class 3\_District distributor
- Proposed\_U4 Class 4(a)\_Collector (Non-residential)
- Proposed\_U4 Class 4(b)\_Collector (Residential)
- Proposed\_Class 5(a)\_Local street (Non-residential)
- Proposed\_Class 5(b)\_Local street (Residential)



## 4.8 MOVEMENT SYSTEM

During the development of the RSDF's the spatial location of proposed land uses is considered. It is essential that the transportation network and services can support the land use proposals. Therefore, a strategic assessment of the transportation needs was undertaken to identify possible transportation system interventions and refinements. The proposals are intended to serve as a point of departure for further more detailed feasibility studies.

### 4.8.1 PLANNING PROJECTS OF A STRATEGIC NATURE

There are currently several important strategic road links that are needed and justified. Some of these are planned to be implemented using public and private funding in partnerships. In Region 7 the following strategic projects are indicated:

- Bronkhorstspuit Road
- Feasibility studies regarding a possible passenger rail link to the rest of Tshwane.
- Improved linkages to the N4 (identified as **development corridor** on the metropolitan scale).
- Upgrading of the R25
- Bronkhorspruit, Ekangala / Ekandastria / corridor.

### 4.8.2 RSDF MOVEMENT SYSTEM PROPOSALS

Since the RSDF's are concerned primarily with the physical environment and aim to guide development, the transportation aspects in this section focus on physical infrastructure and not public transport services. Public transport servicing and scheduling should be guided by the spatial framework and development. It is therefore assumed that the necessary public transport operational planning will be undertaken in due course in support of the RSDF's as part of the 2012/2013 IRTPN process.

Furthermore, the proposals made are largely aligned with existing planning and aim to:

- Supplement existing transportation planning.
- Recommend large scale intervention.
- Scrutinise existing transportation planning (infrastructure).

All proposals made in this section are of a principle nature and require to be investigated in more detail to establish feasibility. Therefore the proposals are intended to inform the transportation planning process in an attempt to ensure integrated land use and transportation planning.

### Bus Rapid Transit (IRPTN System)

The need for a high-quality, customer-orientated public transport (transit) system was identified that will deliver fast, comfortable and low-cost urban mobility within the City. The City's Integrated Transport Plan (ITP) and the Strategic Public Transport Network (SPTN) approved by Council in January 2007 clearly identified certain corridors that should be further investigated and implemented as mass rapid transport corridors.

### BRT Pubic Transport Framework

#### Vision and Objectives

Tshwane's residents depend upon the efficient provision of public transport services to fulfill their daily mobility needs. The integration of the different rail, bus, minibuss, and non-motorized transport options remains a major goal in delivering more convenient and cost-effective services.

The proposed Implementation Plan seeks to articulate the vision and steps required to implement a public transport system that integrates all modes into a seamless and high-quality network.

The overall goal of this initiative is to improve the quality of life for the city's residents through the provision of an integrated public transport network that is rapid, safe and secure, convenient, clean, affordable, and socially equitable.



### 4.8.3 RAIL

#### Passenger Rail Agency of South Africa (PRASA) network planning proposals

PRASA priority corridor in the next 5 years in Gauteng is the Mabopane Johannesburg/Soweto line. The proposal includes upgrading of the capacity in terms of rolling stock and lines. New stations are also planned within this upgrading phase.

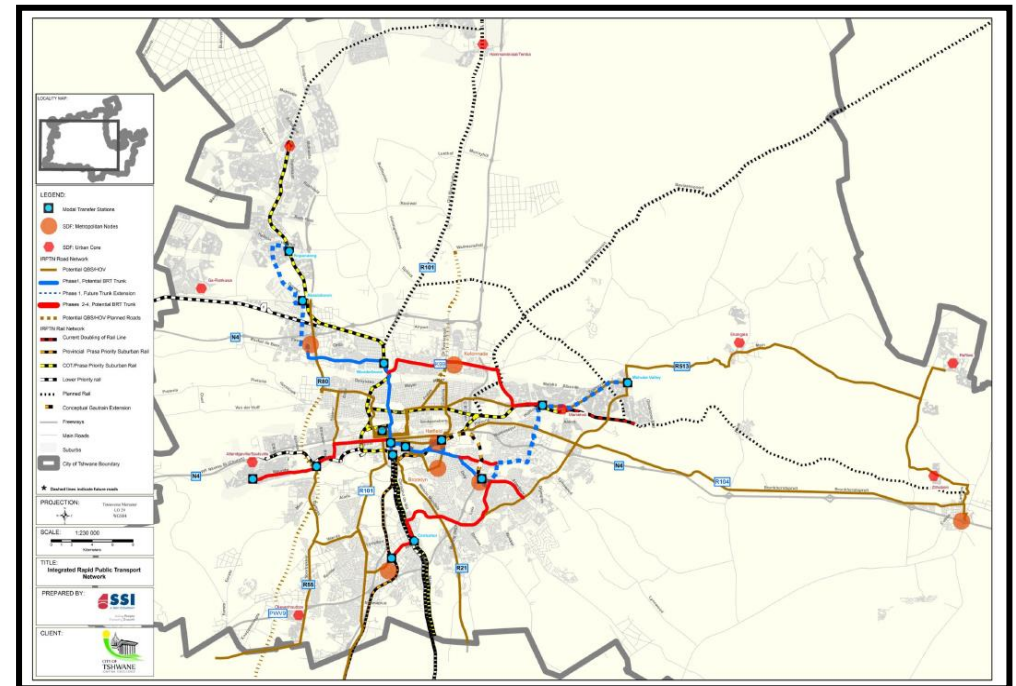


### 4.8.4 BUS RAPID TRANSIT (IRPTN SYSTEM)

The need for a high-quality, customer-orientated public transport (transit) system was identified that will deliver fast, comfortable and low-cost urban mobility within the City. The City's Integrated Transport Plan (ITP) and the Strategic Public Transport Network (SPTN) approved by Council in January 2007 clearly identified certain corridors that should be further investigated and implemented as mass rapid transport corridors.

### Vision and Objectives

Tshwane's residents depend upon the efficient provision of public transport services to fulfill their daily mobility needs. The integration of the different rail, bus, minibuss, and non-motorised transport options remains a major goal in delivering more convenient and cost-effective services. The proposed Implementation Plan seeks to articulate the vision and steps required to implement a public transport system that integrates all modes into a seamless and high-quality network.



## 4.9 RURAL AREAS

The newly demarcated CoT, as a result of the merger between Metsweding District Municipality and the former City of Tshwane now includes a significant rural component. These new Rural Areas as well as the other existing areas need to be analysed and planned in order i.e. to protect the Environmental sensitive areas, to manage the buffer areas and to create opportunities for sustainable development and promote sound land use development in the less sensitive areas.

The Rural map at the end of this section will be applicable to the Rural areas of Region 7.

The Tshwane Rural Component will promote:

- An effective response to rural poverty.
- Measures to ensure food security by maximizing the use and management of natural and other resources.
- Promote the prevention of irreversible loss of productive agricultural land.
- Limit the fragmentation of productive agricultural land.
- Creation of vibrant, equitable and sustainable rural communities.
- Contribution towards the redistribution and sustainable use of all potential agricultural land.
- Creation of employment and business opportunities for the existing rural population.
- Aims to prevent natural disasters like erosion and pollution and other detrimental effects on natural resources.
- Formalization of residential settlements according to the agri village concept.

- Accessibility to community facilities, work opportunities and housing for all.
- Maintenance of acceptable standard for roads and other modals.
- The provision of Public transport as a service for the more densely rural areas.
- The Identification of multipurpose community centres to provide for business, medical, educational, recreational, social and other needs at the most optimum and accessible locations.
- Provision of Adequate and respectable services to improve living conditions.
- Attention to the matter of ownership and tenants' rights especially in areas where tribal land ownership exists.

### 4.9.1 Major Rural Roads

Each Region shows major roads and routes of Metropolitan context through the Region ensuring movement patterns and the continuation of roads and corridors for the greater Metropolitan area.

The following major roads serve the Rural Component of Region 7:

- N4 (existing Platinum Highway)
- R513
- R104 (Old Bronkhorstspuit Road)
- R25

#### 4.9.2 Urban Edge



There are furthermore areas within the Urban Edge earmarked for Future Urban Development and densification with no provision of essential services. The promotion of efficient and effective resource allocation will also not provide services in the near future.

As indicated in Part 2 “Metropolitan Context” of this document the Urban Edge cannot be seen as the only management tool to demarcate the Rural Component of Region 7. The urban edge was previously determined by The Gauteng Spatial Development Framework but in 2012 it was decided by Gauteng Province that Metros could determine their own edge. The urban edge in the northern area as shown on the previous RSDF and LSDF was still determined by the Province in its present location, with good reason at the time.

Development of new townships, especially all inclusive townships that included schools, clinics, libraries, retail and different types of housing typologies have not materialised fast enough for a number of reasons, i.e.

- Shortage of bulk infrastructure (water, sewerage and roads)
- Electricity problems
- Limited funding available for housing stock.
- NDPG funds were not allocated as promised.
- Shortage of funds lead to only RDP types of housing to be erected without variations in typologies.
- Natural increase in population was exacerbated by influx from outside the area.

#### 4.9.3 Development Edge



Compliments and corresponds mostly with the Provincial Urban Edge to indicate the extend of the Urban Fabric but deviates in some instances and only in some Regions from the Urban Edge where it follows the line indicating the non-availability of services infrastructure in the Region. The

resulting area caused by the deviation between the edges can realistically not be developed in the near future and need to remain rural in character until such time that services can be provided.

#### 4.9.4 Future Urban Development Areas



These areas that results from the non- availability of services will form part of the Urban fabric in the future but needs to be planned for and preserved as Rural areas in a sensible way that will not constrict its incorporation when needed.

The rural-urban fringe located beyond most suburbs, where low-density suburban development meets rural and semi-rural areas. Often contains a mixture of land uses, including large-lot suburban residences, country estates, low-density commercial development, and the remaining agricultural and rural land uses. Specific concerns arise with such developments regarding the creation of “leap-frog” development that stimulates further sprawl of the urban area. By contrast, the small holding and agricultural potential of this zone can be planned to constitute an integral and dynamic part of the city economy (sometimes referred to the “urban breadbasket”)

A Future Urban Development Area has been identified around the current Bronkhorstspuit / Zithabeni town area and limited expansion around the Ekandastria, Ekangala, Rethabiseng Area.

Proposed Development Guidelines for development in these areas can be summarized as follows:

- The contribution of the proposed development towards the goals of the City strategy and Metropolitan Spatial Development Framework.
- The availability of bulk engineering services – especially water and sewerage
- The environmental sensitivity of the area – obvious considerations such as watercourses, ridges
- Proximity of site to public transportation routes/facilities such as stations

- Proximity to other supporting social facilities, economic opportunities, retail
- Physical features that may define the development – such as railway lines/watersheds/ provincial roads/environmental areas
- Liveable communities will have to be developed by means of social services such as schools, police stations and other amenities.
- Aesthetics and urban design guidelines will have to be provided with a diversity of housing typology which breaks from the tradition of monotonous housing schemes which have dominated the South African landscape for too long.
- The provisions of sustainable economic opportunities within these areas.

#### 4.9.5 Management Zones



The Management zones are areas not considered suitable for urban development as they are not well located in terms of the larger urban structure and areas of opportunity and/or are characterised by environmental sensitivities as indicated by the C-Plan and Open Space Framework, which are important to protect from a metropolitan perspective. Rural development such as low density eco and equestrian estates will be supported depending on services that can be provided. Within these Management Zones land uses and densities, which do not fit into the denser urban complex, should be permitted. Uses supported in the management zone would be Lodges, Wedding Venues, mini storage, place of refreshment; children party venues. The availability of services and the ease of access to major roads will play an important role in the evaluation of no residential uses as mentioned above. Non-residential uses serving the rural population and surrounding urban areas should be concentrated in Community Service Centres as indicated on

Non- agricultural uses will only be promoted if the amenity of the rural area remains intact and the impacts of the development on neighbouring properties are minimal.

#### 4.9.6 Agricultural High Potential Areas



Where so indicated certain land in Tshwane Rural has unique agricultural potential in terms of its location, soil quality, being close to irrigation and other amenities or able to provide high yields and or produce with specific feeding qualities. These quality areas have importance on Regional, Metropolitan and even National level and should be preserved and used in terms of their uniqueness only. Food produce for the country as a whole should be maintained and improved for future generations.

Productive agricultural land will be protected as far as possible in terms of this framework. Fragmentation of agricultural high potential areas will be restricted to a minimum. Agri- industry will be supported in and in close proximity of agricultural high potential areas.

#### 4.9.7 Sensitive Protected Areas /Biodiversity Zone



Throughout Tshwane there remain farm portions outside of the Urban Edge that will continue to be used for agricultural purposes. These areas are sometimes already enclosed by other land uses but are not earmarked for change yet. It is necessary to preserve the agricultural and rural character and these areas need to be protected from other uses

Sensitive protected areas. (Combination of C-Plan protected areas), including (Ridges and Streams, Natural resources, Fauna and Flora protected places / areas), these areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Protected Areas of Region 7 are:

- Significant ridge systems such as the Bronberg Ridge, Gouwsberg mountains along the Wilge River;



- Significant watercourse systems throughout, most notably the Bronkhorstspuit, Wilge River, Osspruit, Blesbok spruit, Vals and Grootfontein spruit.
- Significant watercourse systems throughout the area, most notably the Bronkhorstspuit dam;
- Very little maintenance action on watercourses;
- Ecologically sensitive areas associated with ridge and watercourse systems;

#### 4.9.8 Sensitive Ridge Areas



Sensitive Ridge area as indicated on the C Plan should be protected as far as possible in terms of development. All development will be restricted in terms of environmental considerations. These areas are important in terms of nature conservation and must be managed to maintain its rural character, visual attractiveness and natural environmental content.

The Sensitive Ridges of Region 7 are located mainly along the Bronberg. This area should be managed through environmental codes, to protect the basic resources. These areas should be managed through environmental codes, to protect the basic resources.

#### 4.9.9 Heritage and Cultural Protected Areas

Heritage and

Similar to monumental protection of structures, places and land within the urban context there are equally important structures places and land found in Tshwane's Rural areas that need protection. In most cases the best protection can be provided when it is also developed and operated as a Tourism attraction.

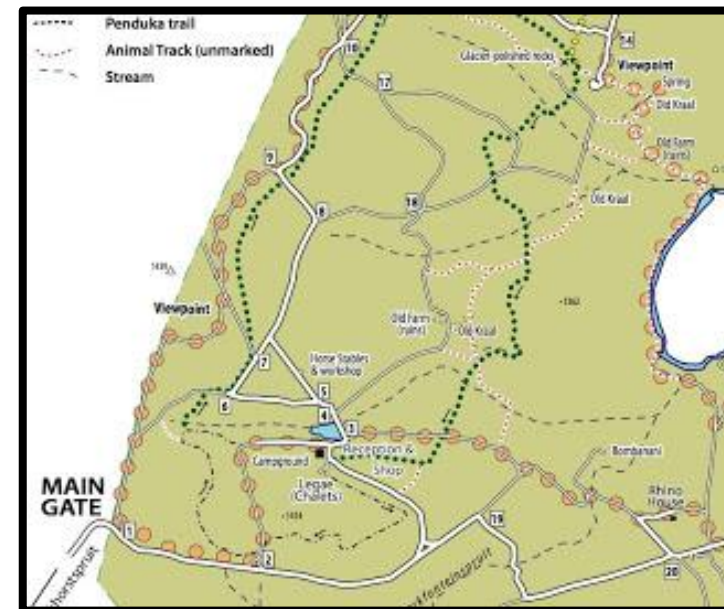
#### 4.9.10 Tourism Potential Places/Areas

Tourism

Of natural and economic importance for Tshwane is the accrue and expansion of the already known places of tourism, tourism attractions and tourism activities. Places with tourism potential occur throughout Tshwane's rural areas. Conservation and preservation needs to be maintained and tourism potential exploited without damaging overall natural and rural character. Different tourism related uses such as picnic areas, lodges, wedding venues and arts and craft related uses including places of refreshment will be supported in these areas. Commercial uses and uses such as storage and light industrial uses should not be supported in these areas.

The following places with tourist potential can be found in Region 7:

- Protected Areas in the form of the Bronkhorstspuit nature reserve and Zenvelo Game Park;





#### 4.9.11 Conservancies

##### Conservancies

Proclaimed conservancies have legal standing and management prescriptions. Conservancies strive towards preservation and the protection of their present state and the notion should be honored in the Rural context and the evaluation of development proposals.

#### 4.9.12 Game and Nature Reserves

##### Game and Nature Reserves

The following game and nature reserves exist in Region 7:

- Zemvelo Private Nature Reserve
- Bronberg Nature Reserve

#### 4.9.13 Mines and Places of Manufacturing

##### Mines/ Places of Manufacturing

There are few and dispersed mines and / or places of manufacturing in Region 7. All of them need to be managed for their time of existence and specific rehabilitation programs should be investigated and implemented. Protection measures should be implemented for adjacent land and sensitive environments.

#### 4.9.14 Human Settlements

There are a number of places in the Rural Component of Tshwane where villages and other forms of human settlements occur. Some settlements are tribal in nature with official captaincy while others are just a habitual conference of people living together. Some have legal support while others are just illegal squatters. It remains a sensitive issue how to deal with settlements and in each specific case measurements should apply how to best resolve settlement issues. Settlements that are to remain, should be formalized and provided for in terms of human needs and basic services. Settlements that are to be relocated need to be planned for according to an approved program. Specific measures must be taken to manage adjacent land.

The Sokhulumi and Vlakfontein-A settlements which are located approximately 35km north east of the Bronkhorstspuit town form part of the Rural Component of Tshwane. The Sokhulumi population is a poor rural community headed by a tribal council. An estimated 300 RDP houses were intended to be constructed on the beneficiaries' existing stands. The area does have the limited basic social services: a clinic, two schools, a number of spaza shops and some places of worship as well as child care facilities. In general, the area is under provided with both service and social infrastructure. Only one reservoir is provided in the area to store and supply the community with the ground water pumped from the borehole(s). This is due to the unavailability of municipal piped water in the area because of its remote location. This lack of service infrastructure limits development in the area.

Any proposed development in these rural areas should be well developed and inclusive, in keeping and scale with its location, and sensitive to the character of the rural landscape and local distinctiveness. Therefore, any development or intention to formalise these settlements should be according to the agri-village concept; for grazing and farming land needs to be protected since some of the community members are still engaged in farming activities.

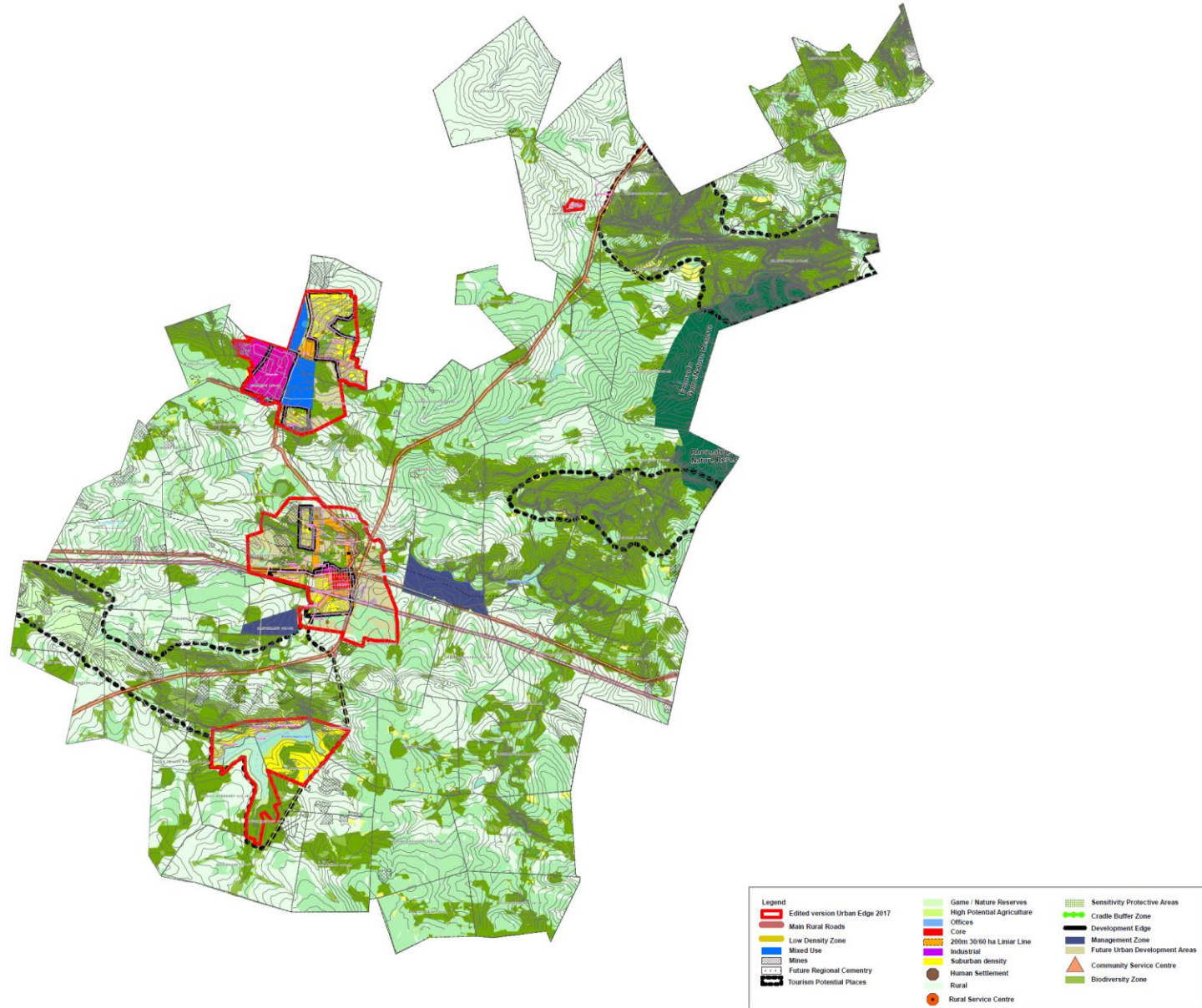
#### 4.9.15 Community Service Centres



Remote rural areas most of the time do not have the convenience of facilities and amenities within easy reach and sometimes have to rely on the closest urbanized area to fulfill certain basic needs.

Because of the extensiveness of most Rural areas it is therefore most logical to concentrate whatever facilities, services and amenities that can and should be provided together close to the bulk of the population at a location that is the most accessible to all.

As transport provides accessibility, road junctions or cross roads tend to provide most accessible locations for surrounding populations in vast Rural areas. It is the challenge of each region to identify such suitable and accessible location/s to establish Community Service Centre/s for its rural component.



#### 4.10 OPEN SPACE AND ENVIRONMENTAL AREAS

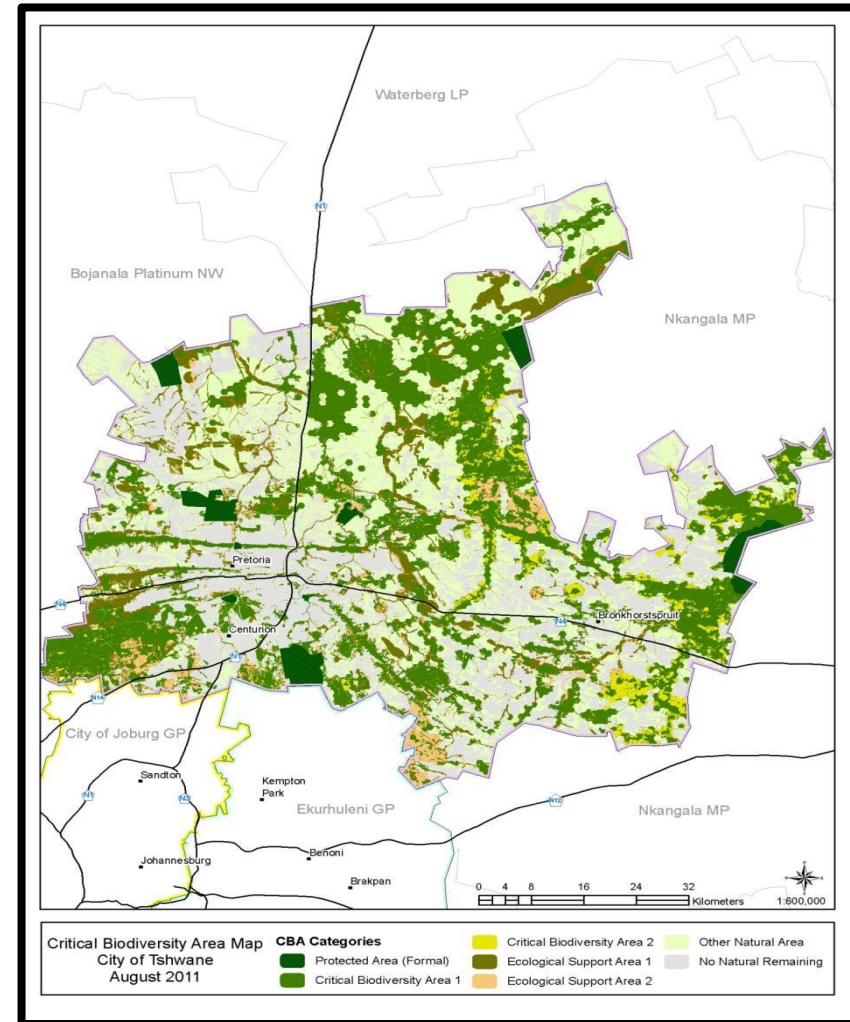
The RSDF plan does not indicate the whole Metropolitan open space network, because of its concern with open spaces on a regional and/or metropolitan scale only. The plan shows as 'Open Space' all rivers and water courses, all mountain ranges and ridges as indicated in the Tshwane OSF, all protected areas, conservation areas and conservancies, as well as the major brown and red nodes. Brown nodes include recreation resorts, multipurpose park/sport facilities and golf courses. The plan also shows as 'Environmental Areas' all irreplaceable, important and high ecological sensitivity sites, as identified and defined by GDARD. Less important brown and red nodes, brown and red ways, and grey nodes and ways are not shown. For complete and detailed information regarding the Metropolitan open space network, it is essential and of utmost importance that the Tshwane OSF plan is always consulted together with the RSDF plan.

The environmental features of Region 7 are major form giving elements that determine the surrounding urban structure.

- Significant ridge systems such as the Bronberg Ridge, Gouwsberg mountains along the Wilge River;
- Significant watercourse systems throughout, most notably the Bronkhorstspuit, Wilge River, Osspruit, Blesbok spruit, Vals and Grootfontein spruit.
- Significant watercourse systems throughout the area, most notably the Bronkhorstspuit dam;
- Very little maintenance action on watercourses;
- Protected Areas in the form of the Bronkhorstspuit nature reserve and Zemvelo Game Park;
- Ecologically sensitive areas associated with ridge and watercourse systems

Discussions with GDARD and the Municipality's Environmental Planning Section must be held before any development or change of land-use application can be submitted, to determine whether the important sites, irreplaceable sites and high ecological sensitivity sites are subject to a possible E.I.A. survey.

The Biodiversity map and tables must be used as a guideline for land uses management in these areas.



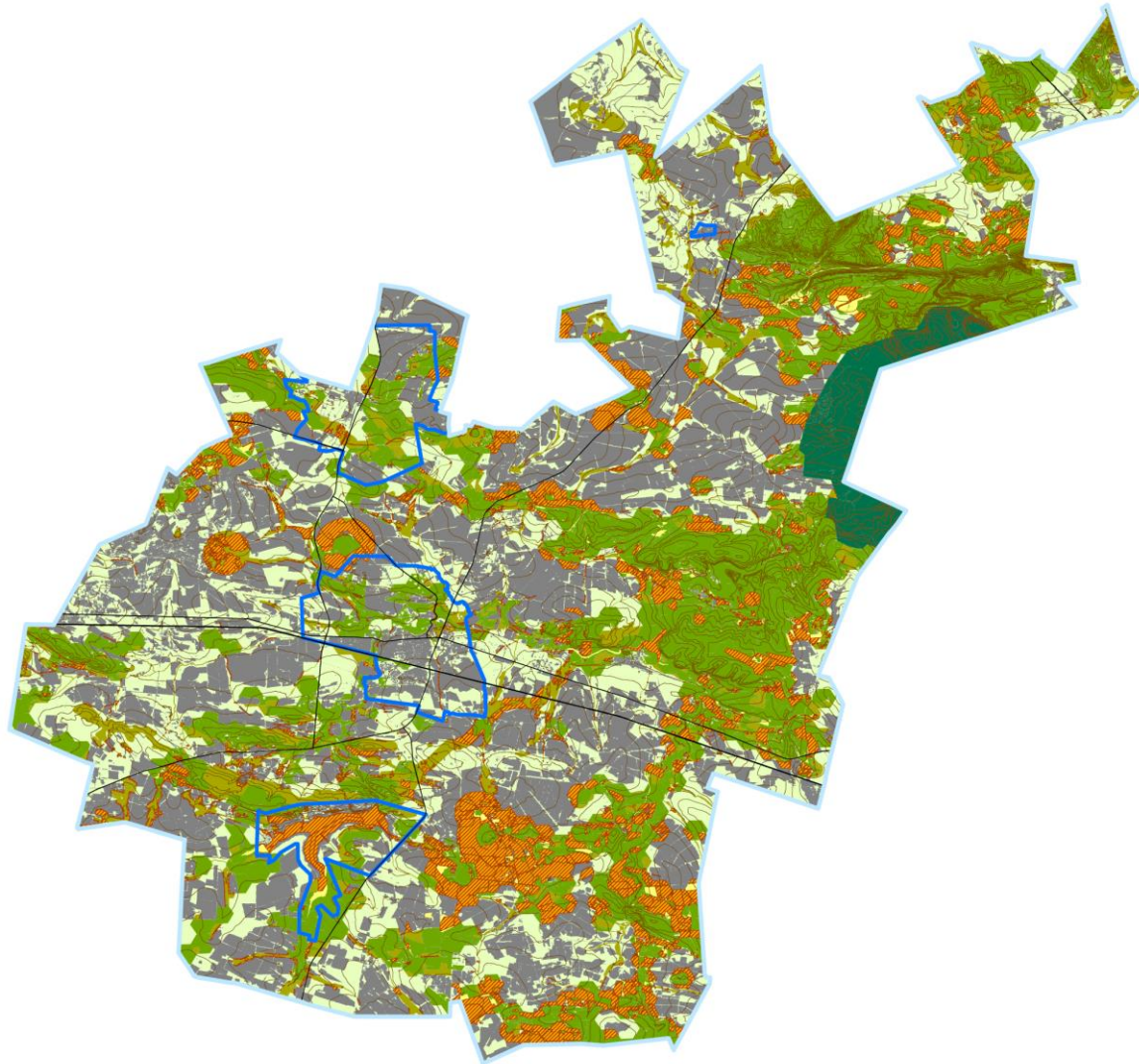


## LAND USE PLANNING GUIDELINES -

Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Protected Areas</b>	Formal Protected Areas and Protected Areas pending declaration under NEMPA.	Maintain natural land. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Maintain or obtain formal conservation protection.	Conservation and associated activities.	All other land-uses.
<b>Critical Biodiversity Areas (1)</b>	Areas required to be maintained in a natural or near natural state to meet targets for biodiversity pattern (features) or ecological processes.	Maintain natural land and ecological processes. Rehabilitate degraded areas to a natural or near natural state, and manage for no further degradation.	Obtain formal conservation protection where possible. Implement appropriate zoning to avoid net loss of intact habitat or intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations with strict control on environmental impacts and carrying capacities, where the overall there is a net biodiversity gain. Extensive Livestock Production with strict control on environmental impacts and carrying capacities. Urban Open Space Systems	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production (all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures). Arable Agriculture (forestry, dry land & irrigated cropping). Small holdings
<b>Critical Biodiversity Area (2)</b>	Cultivated landscapes which retain importance for supporting threatened species	Maintain current agricultural activities. Ensure that land use is not intensified and that activities are managed to minimize impact on threatened species.	Avoid conversion of agricultural land to more intensive land uses which may have a negative impact on threatened species or ecological processes.	Current agricultural practices including arable agriculture, intensive and extensive animal production, as well as game and ecotourism operations, so long as these are managed in a way to ensure populations of threatened species are maintained and the ecological processes which support them are not impacted.	Urban land-uses including Residential (including golf estates, rural residential, resorts), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). More intensive agricultural processes than currently undertaken on site.



Category on the CBA Map	Description	Land Management Objective	Land Management Recommendations	Compatible Land-Use	Incompatible Land-Use
<b>Ecological Support Areas (1)</b>	Natural, near natural and degraded areas required to be maintained in a ecologically functional state to support Critical Biodiversity Areas.	Maintain ecological processes.	Implement appropriate zoning and land management guidelines to avoid impacting ecological processes. Avoid intensification of land use.	Conservation and associated activities. Extensive game farming and eco-tourism operations. Extensive Livestock Production. Urban Open Space Systems. Low density rural residential, smallholdings or resorts where development design and overall development densities allow maintenance of ecological functioning.	Urban land-uses including Residential (including golf estates), Business, Mining & Industrial; Infrastructure (roads, power lines, pipelines). Intensive Animal Production ( all types including dairy farming associated with confinement, imported foodstuffs, and improved/irrigated pastures) Arable Agriculture (forestry, dry land & irrigated cropping). Note: Certain elements of these activities could be allowed subject to detailed impact assessment to ensure that developments were designed to maintain overall ecological functioning of ESAs.
<b>Ecological Support Areas (2)</b>	Areas with no natural habitat which retain potential importance for supporting ecological processes.	Avoid additional impacts on ecological processes.	Avoid intensification of land use, which may result in additional impact on ecological processes.	Existing activities ( e.g. arable agriculture) should be maintained, but where possible a transition to less intensive land uses should be favoured.	Any land use or activity which results in additional impacts on ecological functioning, mostly associated with the intensification of land use in these areas (e.g. Change of floodplain from arable agriculture to an urban land use or from recreational fields and parks to urban).
<b>Other Natural Areas</b>	Natural and intact but not required to meet targets, or identified as Critical Biodiversity Areas or Ecological Support Areas.	No management objectives, land management recommendations or land-use guidelines are provided as these areas are outside the ambit of the Bioregional Plan. These areas are nevertheless subject to all applicable town and regional planning guidelines and policy. Where possible existing transformed areas should be favoured for development before "Other natural areas" as before "Other natural areas" may later be required either due to the identification of previously unknown important biodiversity features on these sites, or alternatively where the loss of "Critical Biodiversity Areas" has resulted in the need to identify alternative sites.			
<b>No natural habitat remaining</b>	Transformed or degraded areas which are not required as Ecological Support Areas, including intensive agriculture, urban development, industry; and infrastructure.				



#### Legend

- Region 7
- Municipal Boundary
- Highways
- Urban Edge 2013
- Contours 2013 20m

- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Area 1
- Ecological Support Area 2

- No Natural Remaining
- Other Natural Area
- Protected Area (Formal)
- High Potential Agricultural

Date: 2016/12/14  
Scale: 1:82 870

#### 4.11 WETLAND MANAGEMENT PLAN FOR TSHWANE

This plan has been developed to improve wetland management in the City of Tshwane. Wetlands are critical to the wellbeing of the local economy, communities and individual people and provide a range of services for the City of Tshwane.

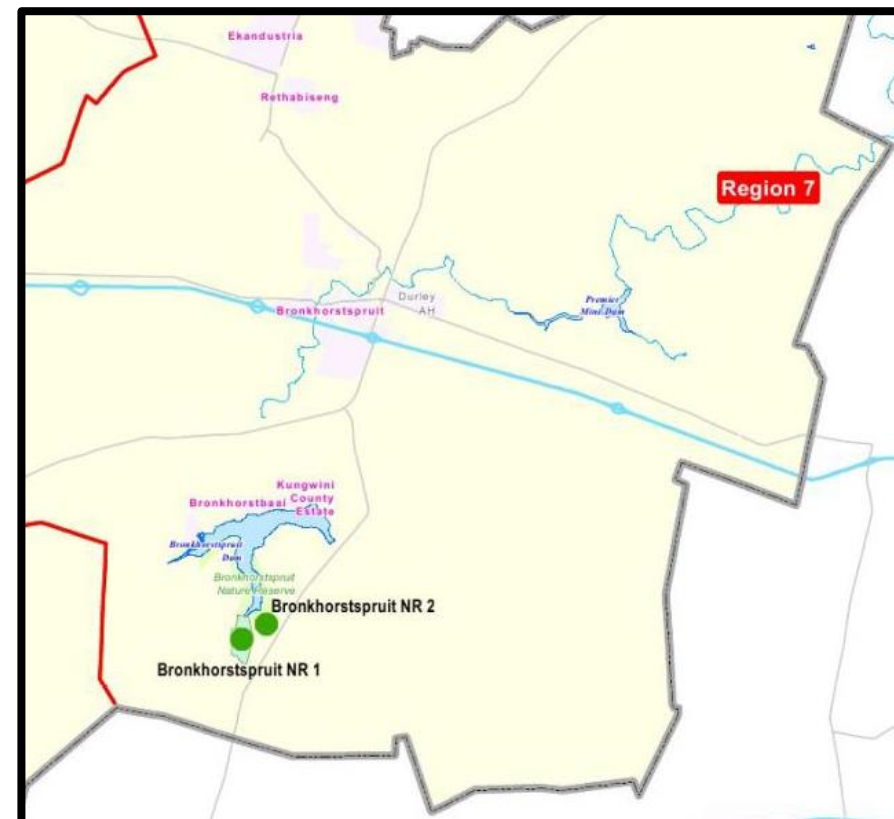
Wetlands can be regarded as „ecological infrastructure“. They are as important as other types of infrastructure for providing a range of services for residence. As with other forms of infrastructure such as roads, wetlands also require management and maintenance in order to keep them in good condition and functioning well.

Ecosystem services provided by wetlands include: water storage, flood protection, water purification, food, materials, habitat for species, carbon storage, local climate and air quality regulation.

It is important to take note that wetlands benefits all the residence of the City of Tshwane. Although the Municipality is the custodian of wetlands only on municipal properties, all the wetlands supply ecosystem services to all residents.

The goals of the plan are as follows in Region 7.

1. Wetlands are conserved and protected.
2. In areas where the continuing loss or degradation of wetlands, or their functions, have occurred and/or reached critical levels, wetlands are rehabilitated or enhanced.
3. All departments are aware of the importance of wetlands and wetland functions are recognised in resource planning, management and economic decision-making with regard to all programmes, policies and activities within the City of Tshwane.
4. Local communities collaborate in wetland management.



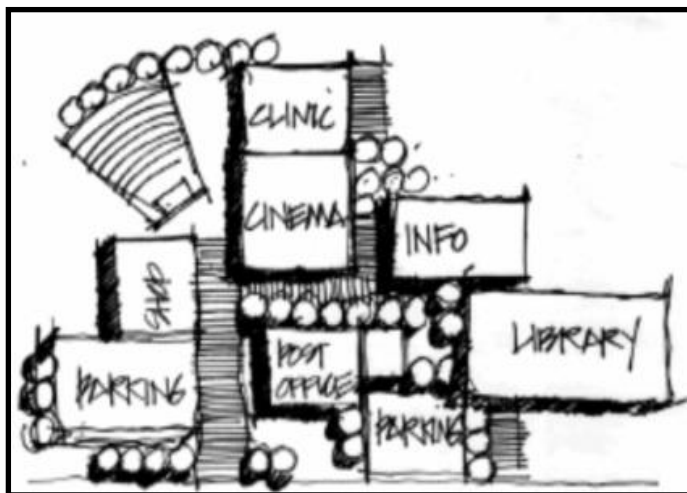
#### 4.12 SOCIAL FACILITY PLANNING

From a spatial or location perspective, the clustering of parks and social facilities in and around corridors and other points of highest accessibility (such as major transport facilities) is of vital importance.

Different social facilities such as schools, clinics, play points, library's, active open space and other should be clustered at one central point in the residential neighbourhood and should be accessible in terms of public transport.

Public space and specifically Council owned property should be kept in reserve as the need for social facilities increase. Open green space should not be privatised. Existing open spaces and parks must be protected and not used for development purposes

Encourage community and stakeholder collaboration; and retain, enhance and encourage cultural assets. Neighbourhood amenities must be provided as densification takes place.



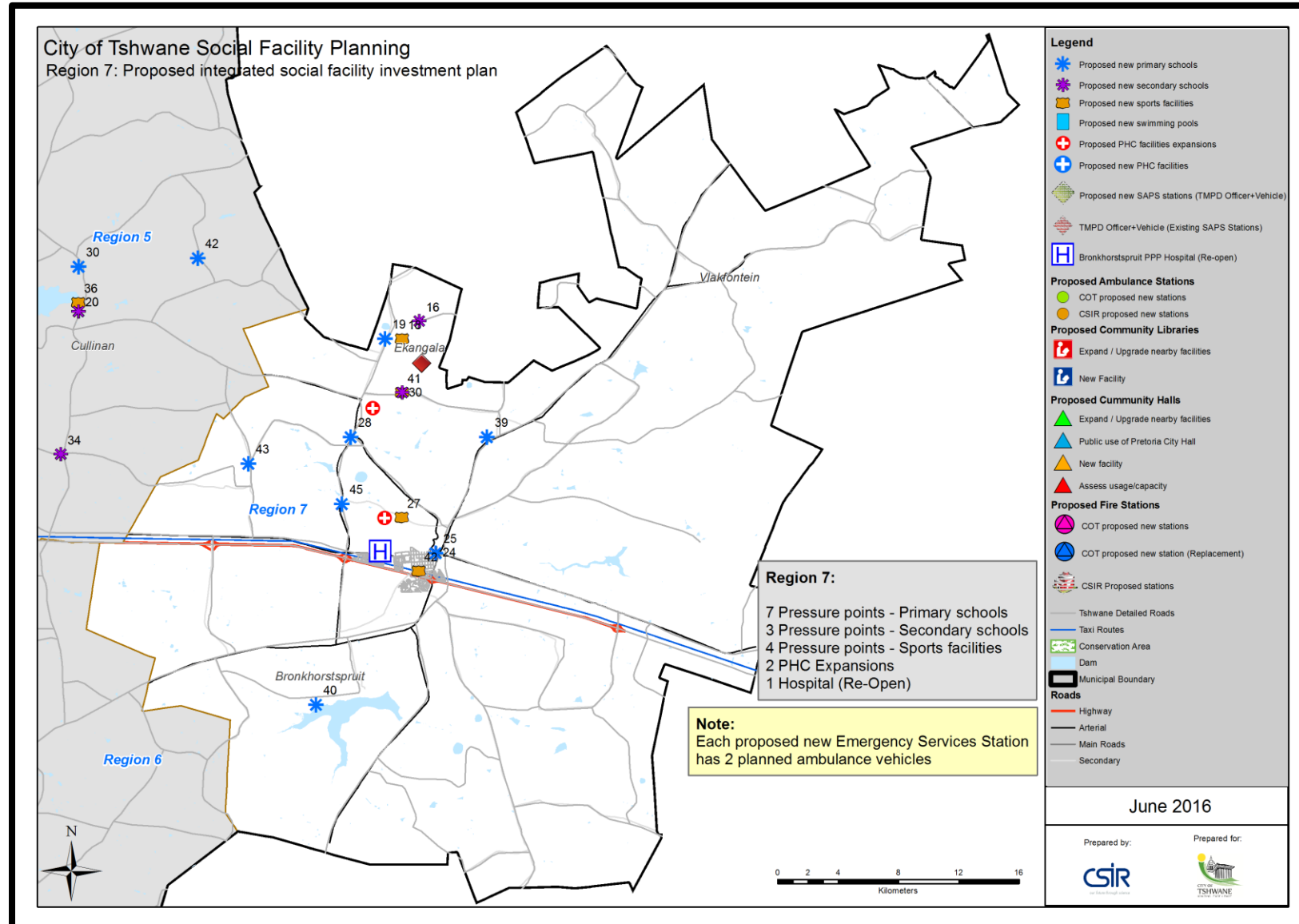
Where neighbourhoods lack sufficient open space, new parks and recreation areas must be introduced, especially in areas earmarked for higher density development. Activity Support is the presence of activity planned for the space. Development designs should locate plazas, for example, in places where they are most likely to be used for gatherings (both organized events and informal meetings).

Primary schools identified and their attracted population / demand – Region 7		
Attracted population	Facility equivalent	Suburb / Sub-place
1 564	An equivalent to 1 school of 1000 pupils	Enkangala A
1 130	An equivalent to 1 school of 1000 pupils	Bronkhorstspuit
1 005	An equivalent to 1 school of 1000 pupils	Rethabiseng
253	Consider expansion of the nearest school	Ekangala D
231	Consider expansion of the nearest school	Bronkhorstspuit Dam
211	Consider expansion of the nearest school	Forfar
195	Consider expansion of the nearest school	Zithobeni

Secondary schools identified and their attracted population / demand – Region 7		
Attracted population	Facility equivalent	Suburb / Sub-place
1 731	Equivalent of 2 secondary schools of 1000 pupils	Enkangala F
940	Equivalent of 1 secondary schools of less than 1000 pupils	Bronkhorstspuit
576	Equivalent of 1 secondary schools of less than 1000 pupils	Rethabiseng



# 4.13 SOCIAL FACILITY PLANNING





## PART FIVE: DETAIL PRECINCT PLANS

### 5.1 EXISTING PRECINCT PLANS

Previously a number of precinct plans and policies have been developed for areas within the region which are in line with the CDS and MSDF. The following list of policies and plans with their main proposals are included as part of this framework:

#### 5.1.1 BRONKHORSTSPRUIT NODE

Bronkhorstspuit Node is one of the Metropolitan nodes within the City of Tshwane. Bronkhorstspuit functions as the main mixed use node and serves as support to the surrounding farming communities and smaller settlements in the region. The town is characterized by retail, light industries, motor workshops and low density residential developments.

The provision of engineering services within the Bronkhorstspuit Node needs improvement especially to increase electricity, sewer and water networks for future development in the area.

Densification within the town center is supported to ensure that public transport is enhanced in the area. Most of the erven in the Bronkhorstspuit node are larger (1000 m<sup>2</sup>) and infill development is possible.

The core area of Bronkhorstspuit node should be developed as a mixed use node comprising medium to high density residential development, commercial uses, business and other uses associated with a mixed use node.

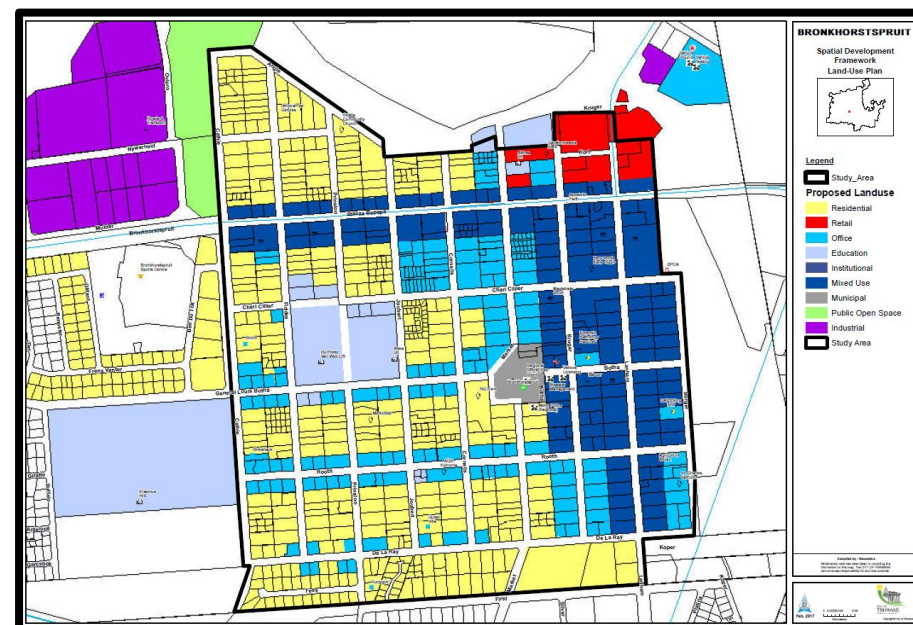
Single residential dwellings are located in the core area with higher density residential and community facilities including clinics, churches and municipal offices throughout the area. The town recently, mainly residential and community uses, extended southwards.

The Bronkhorstspuit runs through the node, creating a significant open space system. Recreational facilities have developed along the river including a golf course. The potential exists to develop this open space system. The RSDF indicates a number of nodes which are important on a regional and local level. The following urban planning requirements must be noted when developers consider proceeding with a retail development:

To ensure that prospective applicants who intend developing retail facilities sufficiently address all aspects in their applications for retail rights and are thoroughly briefed on all the requirements of the Municipality with regard to such developments, a pre-application consultation should be followed, where the following aspects will be addressed:

- Locational Requirements
- Urban Design
- Parking requirements and layout
- Taxi ranks and public transport facilities
- Informal Trade
- Site development plans
- Studies. (Market Demand)

A feasibility study will also be required for retail developments greater than 4000 square metres.



**Spatial Development Proposal - Bronkhorstspuit Area**

Map showing the proposed spatial development for the Bronkhorstspuit area, including various zones and infrastructure.

**Legend:**

- Upgrade/Open Space Area
- M&E Development
- Production/Industrial
- Recreation/Open Space
- Urban Edge 2010

Key locations and roads labeled on the map include:

- Zithobeni
- Madupark
- Riamaripark
- Cultra Park
- Erasmus
- Bronkhorstspuit
- Kristal Park
- VERSTERPARK AH
- DURLEY AH
- Region 7
- SCHRISTPOORT 367-JR
- ROODEPOORT 504-JR
- HONDEPOORT 623-JR
- RESURGAM 513-JR
- KLEIRELAND 524-JR
- ROOITORSCHT 523-JR

The priority development proposals are as follows:

<b>Project</b>	<b>Description</b>	<b>Responsible Department</b>
<b>R104 Mixed Use Activity Spine</b>	Priority should be given to the development of the R104 as Mixed Use Activity Spine.	City Planning
<b>Road linkage and Infill Development between Zithobeni and Bronkhorstspuit</b>	An integrated settlement pattern between Zithobeni and Bronkhorstspuit must be created through the creation of development opportunities in the buffer area. Preference should be given to mixed use and industrial activities.	Transport and Roads
<b>Greening and beautification</b>	The upgrading of the entrance to Bronkhorstspuit from the N4 highway (R25) through the planting of trees and plants as well as pavement of walkways and street lighting should be addressed.	Agriculture and Environmental Management
<b>Nodal development at entrances to Bronkhorstspuit</b>	Facilitate and accommodate nodal developments at entrances to Bronkhorstspuit.	City Planning
<b>Upgrade and maintenance of Public Open Space</b>	Provide for the upgrade and maintenance of the Public Open Space System in town, especially along the river. Provide for recreation and/or sport facilities.	Agriculture and Environmental Management
<b>Pedestrianisation of roads to municipal offices and provision of public amenities</b>	Market Street and General Louis Botha Street are the access streets into the Bronkhorstspuit CBD and to the municipal offices. The pedestrianisation and beautification of these streets as well as the creation of a publicly inviting area round the municipal offices should be attended to.	Transport and Roads, City Planning
<b>Development of Planning and Spatial Development Policy and Strategy</b>	It is important that the necessary spatial policies, strategies and framework be developed to provide development direction.	City Planning
<b>Preparation of Urban Design Framework</b>	The preparation of an Urban Design Framework for Bronkhorstspuit/Zithobeni should be undertaken.	City Planning
<b>Economic Development and Job Creation</b>	A formal Economic Development Strategy must be developed this must include a specific reference to tourism development and industrial (manufacturing) development including incentives.	Economic Development
<b>Skills Training and Capacity Building</b>	The need for skills training has been identified eg agriculture/manufacturing	Economic Development

<b>Provision of Engineering Services</b>	The provision of bulk services to the area to accommodate new extensions must be addressed. The maintenance of existing services, especially in the older areas is also important.	Public Works and Infrastructure Development: Water and Sanitation, Electricity
<b>Access to Land for Housing</b>	The people addressed a need to access land for housing. The development of high density housing as well as lower income housing is identified as a need in the area. A housing strategy needs to be developed for this area.	Housing and Sustainable Human Settlements
<b>Establishment of trade areas</b>	Provision must be made for trade in settlement nodes, this include informal trade as well as the upgrade and maintenance of the business environment.	Economic Development, City Planning
<b>Provision of Public Transport System</b>	An effective public transport system must be developed and implemented to link the small towns with the larger economic centres. Also the improvement of public transport facilities eg taxi ranks.	Transport and Roads
<b>Environmental issues</b>	Effective open space planning as well as maintenance programmes eg grass cutting is important also the provision of garden waste transfer stations and waste collection.	Agriculture and Environmental Management
<b>Provision of Agricultural Support</b>	The provision of agricultural support eg fresh produce and transfer stations as well as agri-processing.	Agriculture and Environmental Management, Economic Development
<b>Maintenance of major road linkages</b>	The maintenance of major road linkages in the area is of importance.	Transport and Roads, Gauteng Transport and Roads

## 5.2 REQUIRED PRECINCT PLANS (NON-PRIORITISED)

1149

The following are precinct plans that are required to guide the development of specific precincts within the Region. It includes:

- Kameeldrift-Derdepoot area
- Gem Valley-Leeuwfontein area
- Zonderwater Heritage Precint
- Cullinan Tourism Precint
- Onverwagt Agri Development Strategy
- Lomjekejte Heritage precinct

## 5.3 PLANNING POLICY RATIONALISATION

Spatial Policy	Status	Approval Date	Purpose	Changes in planning Context	Proposed Future of Plan
Urban Areas Spatial Development Framework	Approved	16 April 2007	Spatial Plan	N/A	Spatial Development Framework 2012: Region 7
Rural Areas Spatial Development Framework	Approved	16 April 2007	Spatial Plan	N/A	Spatial Development Framework 2012: Region 7
Development Guidelines	Approved	16 April 2007	Land use Guidelines	N/A	Spatial Development Framework 2012: Region 7



## Region 7



## Legend

## Density

- Transit Zone
- Local Nodes
- Transport Orientated Development
- Transport Corridor (BRT phase 1)
- 500m Walking Distance (200/ha)
- 700m Walking Distance (120/ha)
- Linear Zone
- High Density
- Suburban Density
- Low Density Zone
- Low Density Zone

- Main Rural Roads
- Game / Nature Reserves
- High Potential Agriculture
- Sensitivity Protective Areas
- Cradle Buffer Zone
- Development Edge
- Future Urban Development Areas
- Community Service Centre
- Biodiversity Zone
- Rural

## Land-Use

- Cemetery
- Mixed Uses
- Office
- Airport
- Campus
- Future Nodes
- Future Regional Cemetery
- Industrial
- Retail
- Educational
- Mining

- Water Shed / Development Edge
- Urban Edge 2013
- CBD 25 km Radius
- Proposed IRPTN
- Railway
- Proposed Railway
- Proposed Station
- Landfill

## CBA Categories

- Critical Biodiversity Area 1
- Critical Biodiversity Area 2
- Ecological Support Area 1
- Ecological Support Area 2
- Other Natural Area
- Protected Area (Formal)

## Community Service Centres

- Community Service Centre
- Human Settlement
- Proposed Rural Service Centre
- Rural Service Centre

## Highways

- Existing
- Proposed

## Activity Spine

- Existing
- Proposed

## Activity Street

- Existing
- Proposed

## Mobility Spine

- Existing
- Proposed

## Mobility Road

- Existing
- Proposed

## Roads Masterplan

## CLASS

- U1 Class 1\_Primary metropolitan distributor
- U2 Class 2\_Metropolitan distributor
- U3/A Class 3/A\_District distributor
- U3 Class 3\_District distributor



## 6. REFERENCES

Cities Network, **Developing a Collective approach to Mixed- Use Development in Transit – Oriented Development Precincts**, June 2016.

City of Johannesburg, **Complete Streets**, April 2013.

City of Tshwane, **Comprehensive Integrated Transport Plan 2015 - 2020**, June 2016.

City of Tshwane, **Integrated Rapid Public Transport Strategy of the City of Tshwane**, November 2012.

City of Tshwane, **Rapid Transit (TRT): Spatial Development Policy: Densification and Intensification Guidelines**, March 2014.

City of Tshwane, **Streetscape Design Guidelines**, August 2007.

City of Tshwane, **Draft Streetscape Design Guidelines**, August 2013.

City of Tshwane, **Tshwane MSDF 2012**, June 2012.

City of Tshwane, **Tshwane RSDF 2013**, March 2014.

Gauteng Province, **Gauteng Spatial Development Framework: 2011**.

Gauteng Province, **Gauteng 25 Year Integrated Transport master Plan** : November 2013

ITPD, **The Transit Orientated Development Standard**, New York, 2015.

RSA, **National Development Plan: 2030**, National Planning Commission. 2013

RSA, **National Department of Agriculture, Norms and Standards for Land uses Change: 2016**

RSA, **Spatial Planning and Land Use Management Act**, 16 of 2013.

World Bank, **Transforming Cities with Transit: Transit and Land use Integration for Sustainable urban Development**, January 2013.